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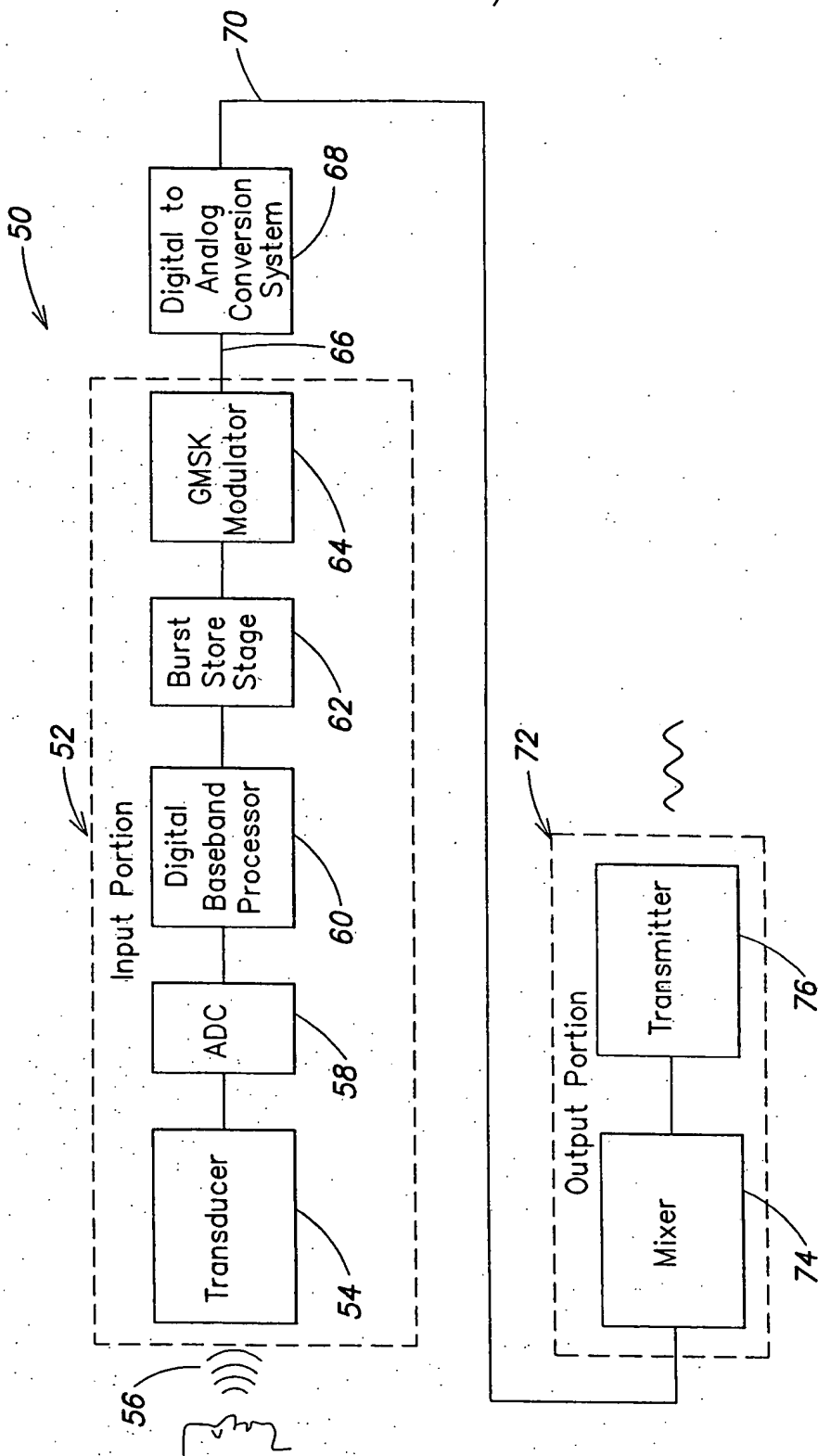
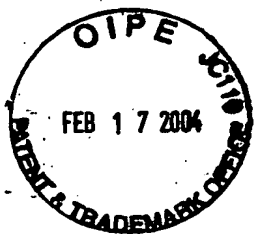


FIG. 1



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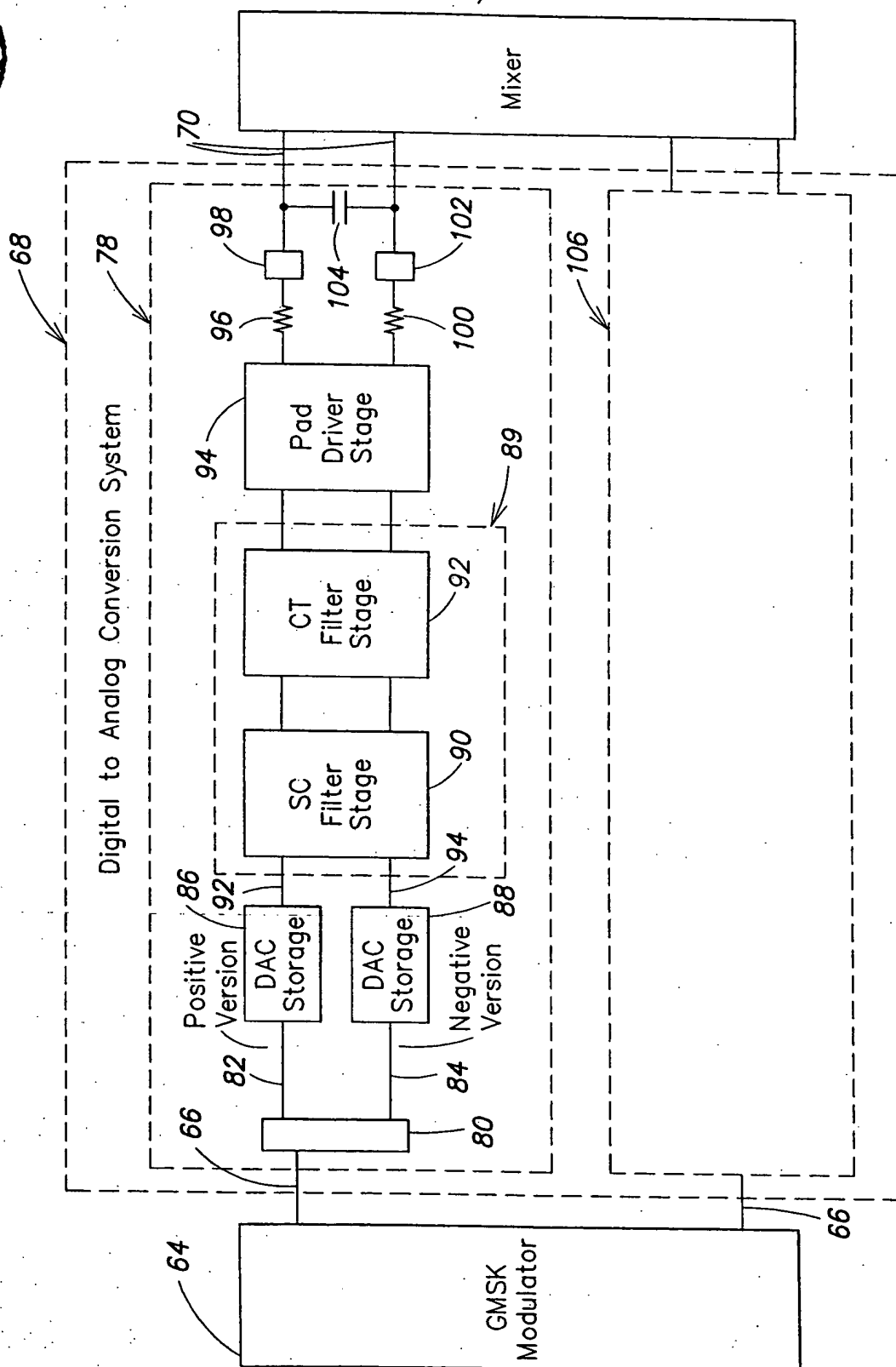
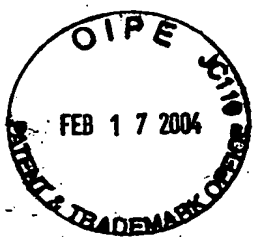


FIG. 2



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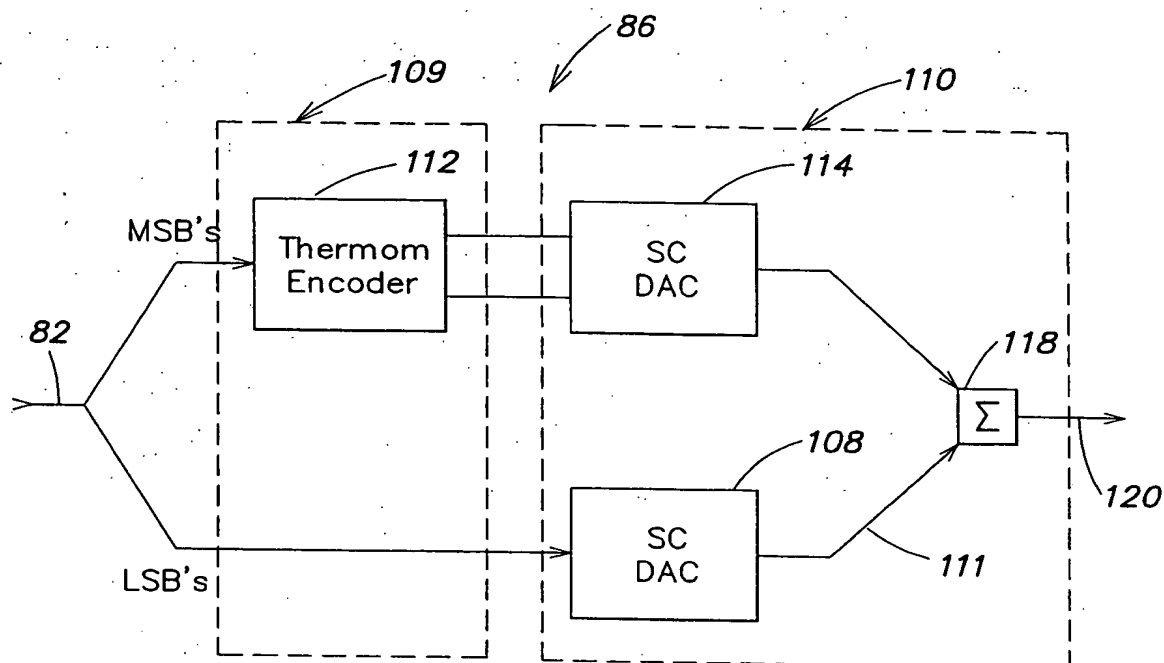


FIG. 3



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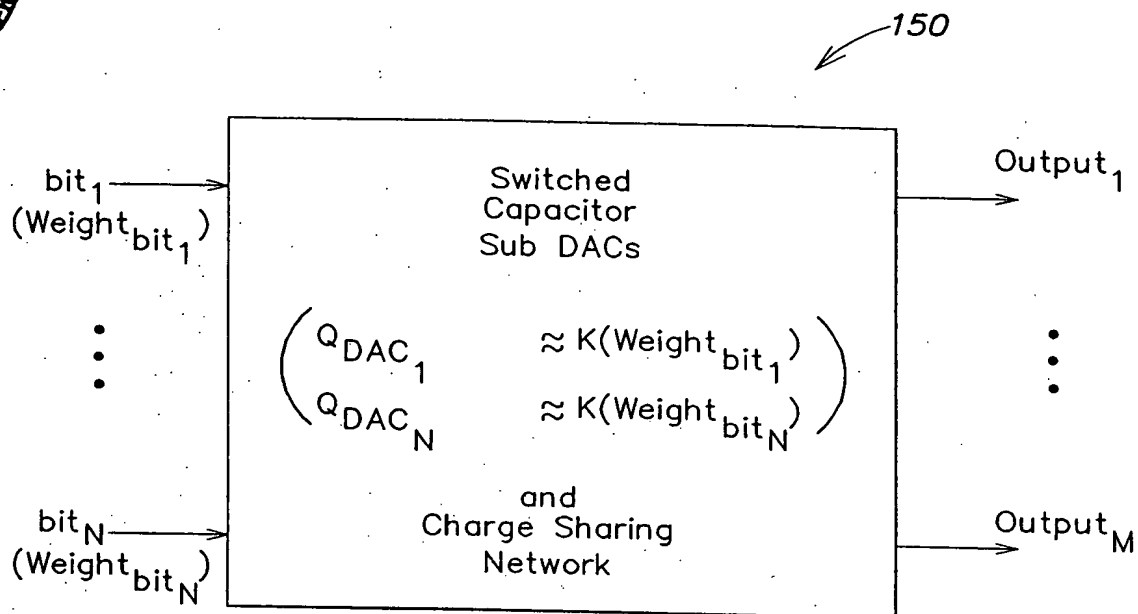


FIG. 4

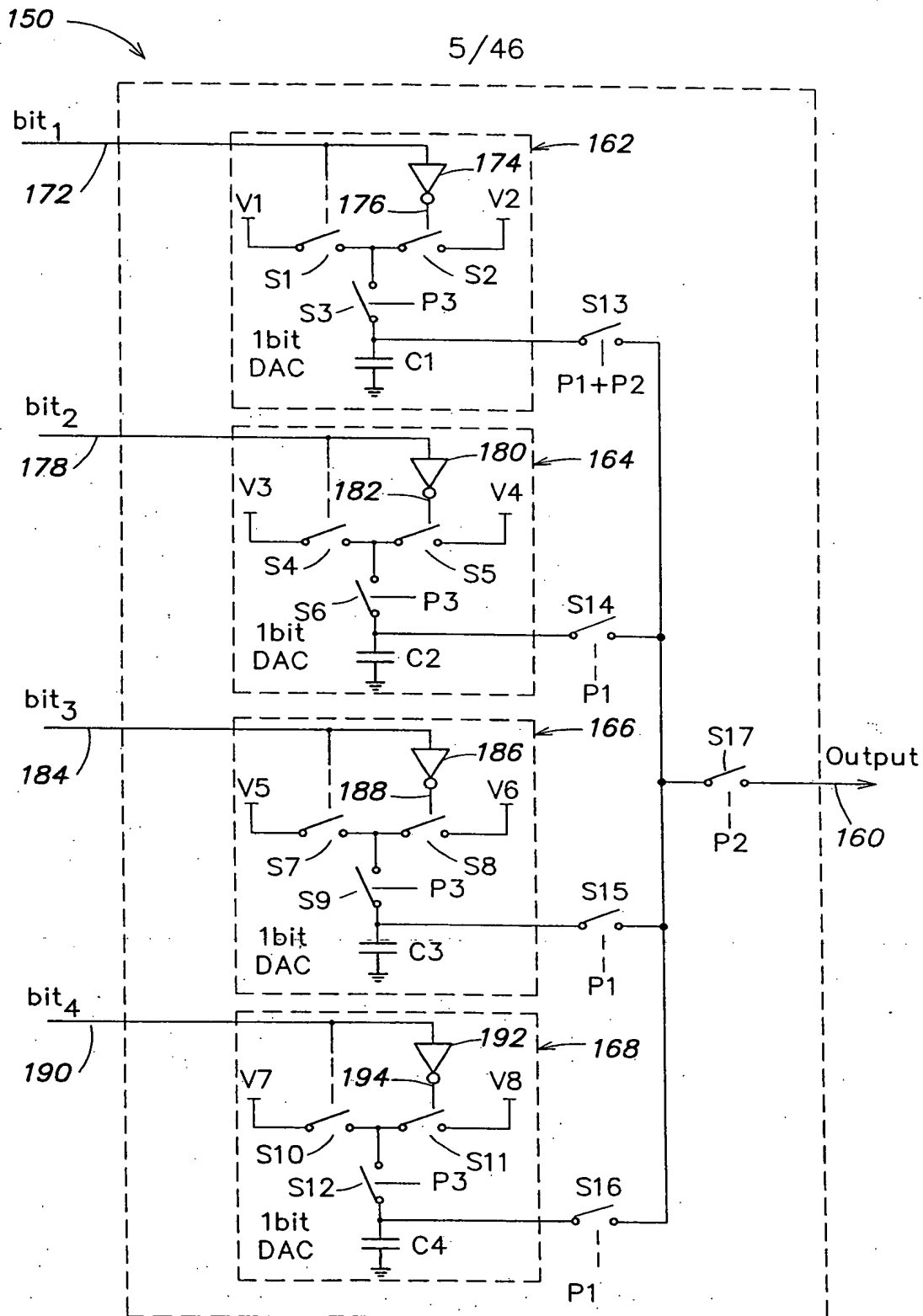


FIG. 5



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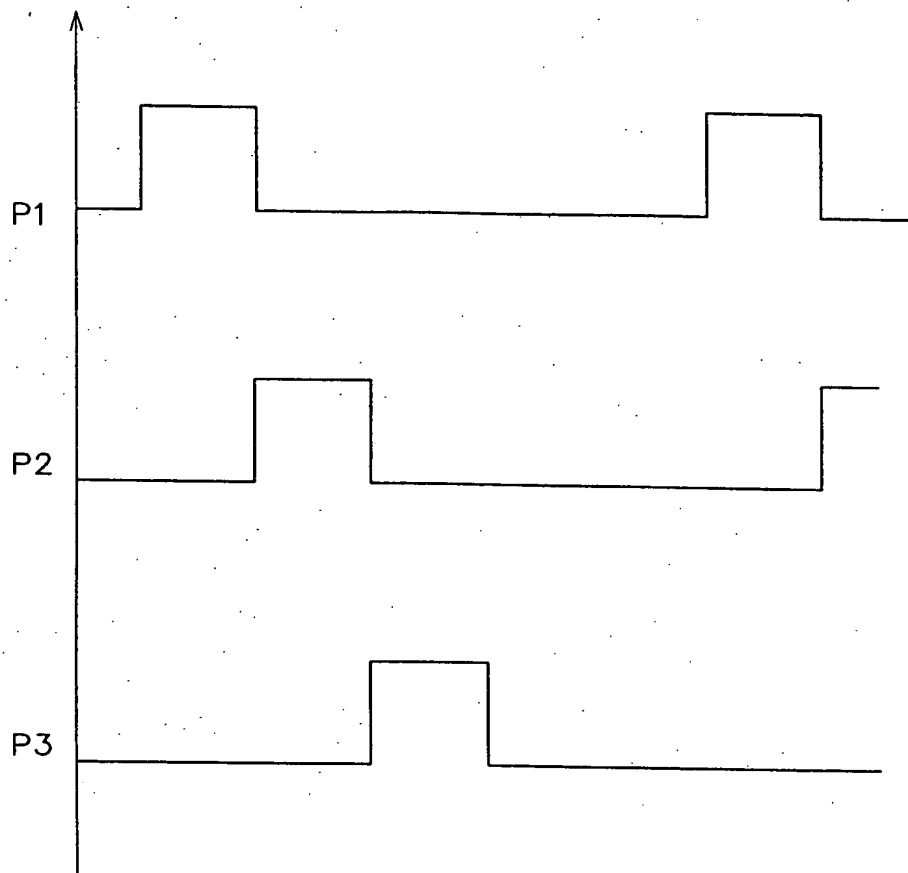


FIG. 6

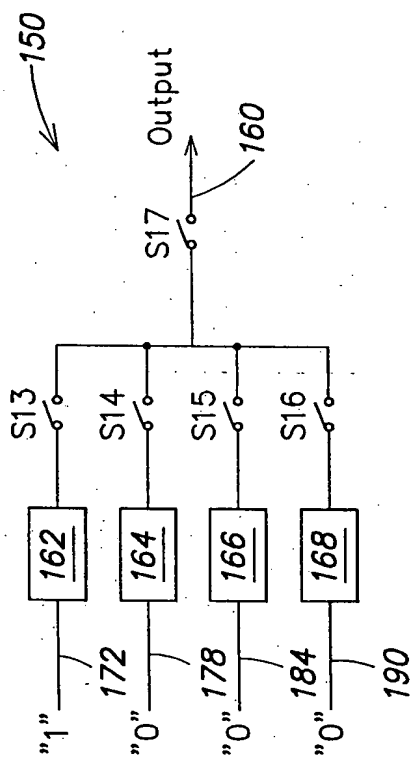


FIG. 7A

P1="0"	$V(C1)=V_{ref}$	$Q(C1)=C \cdot V_{ref}$
P2="0"	$V(C2)=0$	$Q(C2)=0$
P3="1"	$V(C3)=0$	$Q(C3)=0$
	$V(C4)=0$	$Q(C4)=0$

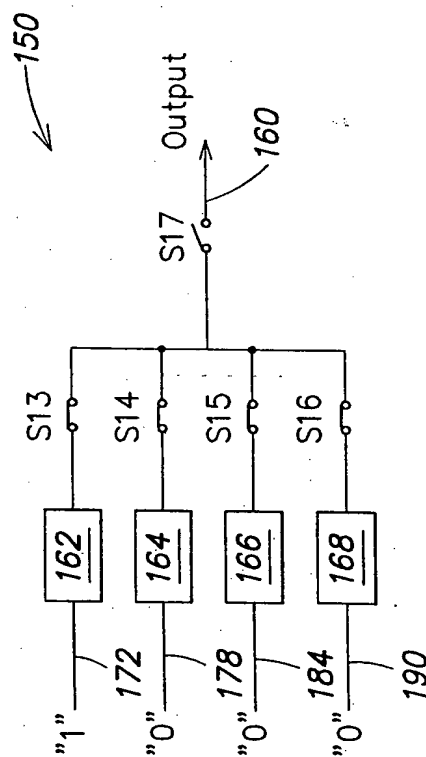


FIG. 7B

P1="1"	$V(C1)=V_{ref}/4$	$Q(C1)=C \cdot V_{ref}/4$
P2="0"	$V(C2)=V_{ref}/4$	$Q(C2)=C \cdot V_{ref}/4$
P3="0"	$V(C3)=V_{ref}/4$	$Q(C3)=C \cdot V_{ref}/4$
	$V(C4)=V_{ref}/4$	$Q(C4)=C \cdot V_{ref}/4$



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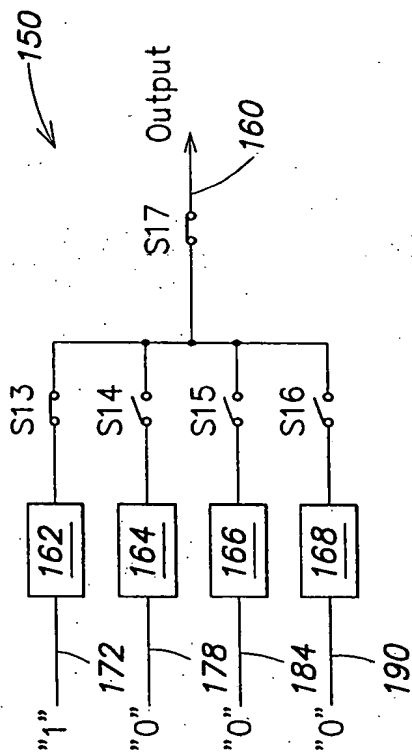


FIG. 7C

P1 = "0"	$V(C1) = V_{ref}/4$	$Q(C1) = C \cdot V_{ref}/4$
P2 = "1"	$V(C2) = V_{ref}/4$	$Q(C2) = C \cdot V_{ref}/4$
P3 = "0"	$V(C3) = V_{ref}/4$	$Q(C3) = C \cdot V_{ref}/4$
	$V(C4) = V_{ref}/4$	$Q(C4) = C \cdot V_{ref}/4$

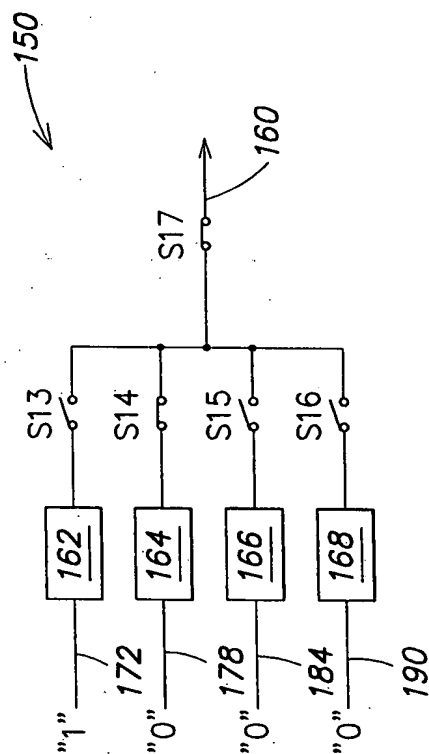


FIG. 10



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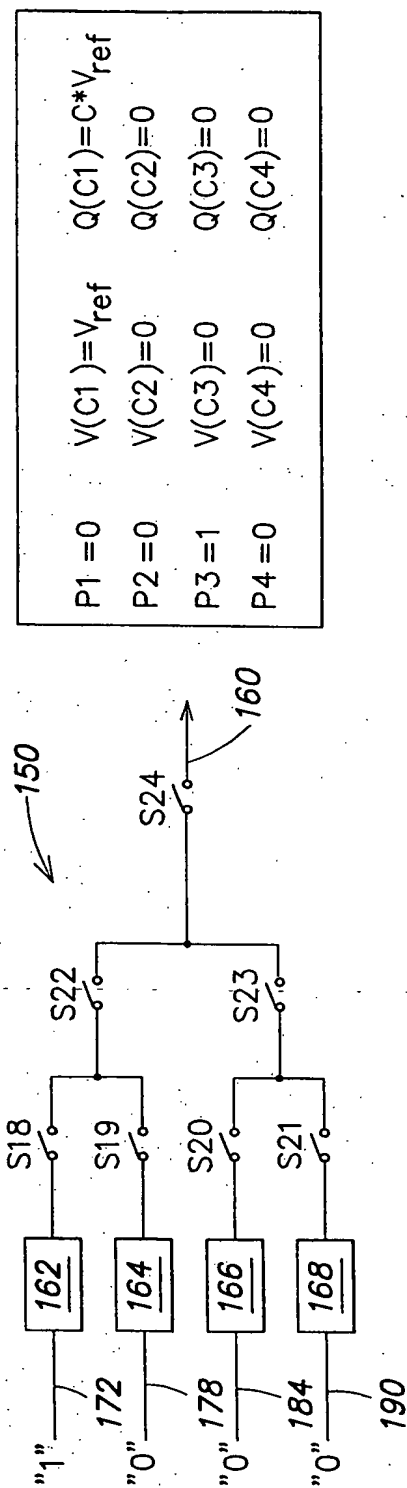


FIG. 8A

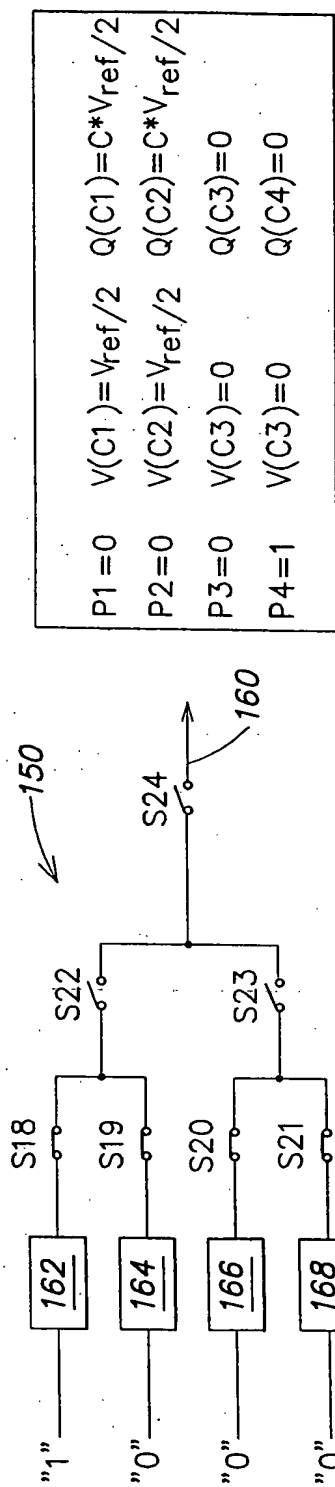


FIG. 8B



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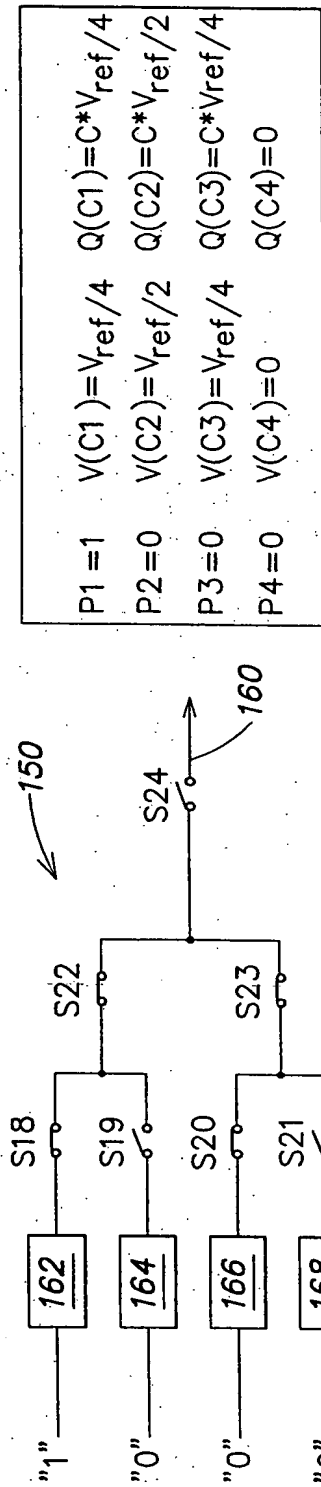


FIG. 8C

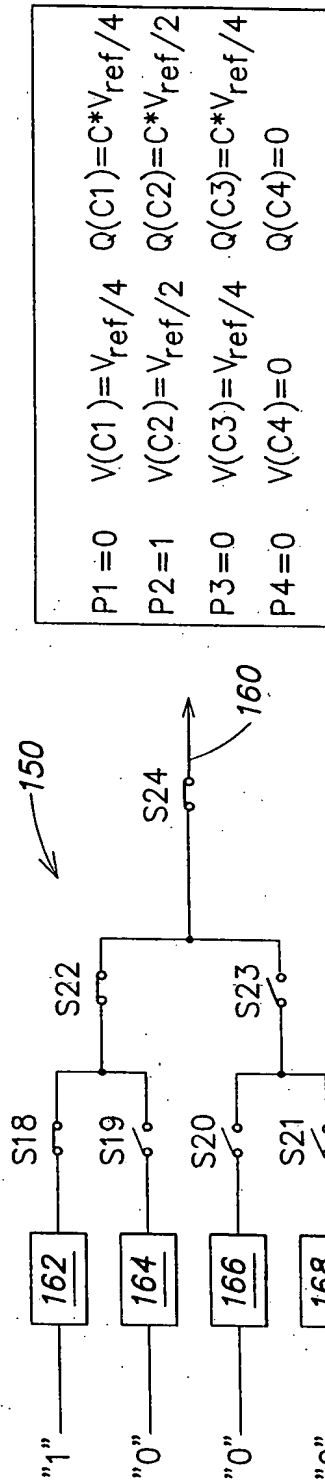


FIG. 8D



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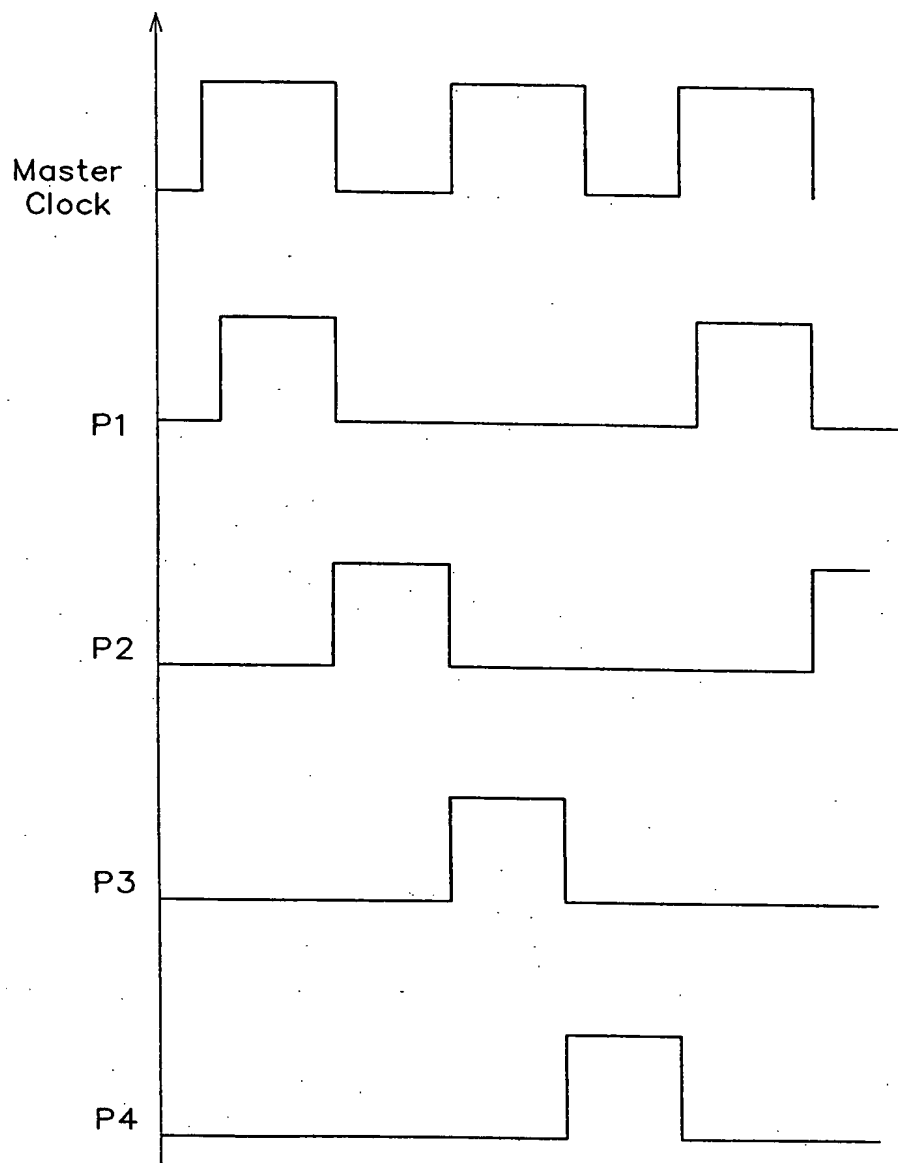


FIG. 9



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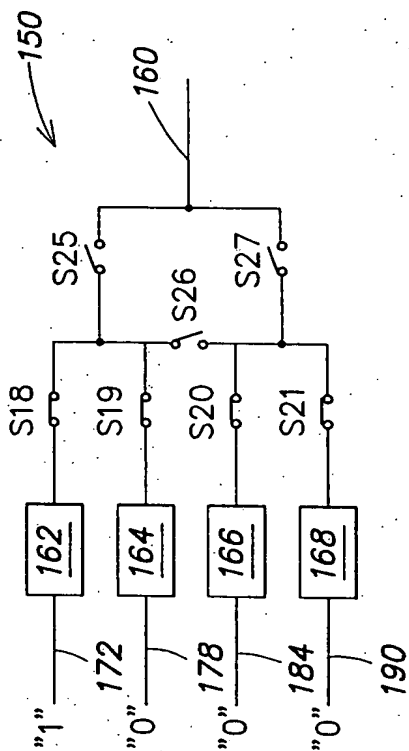


FIG. 11B

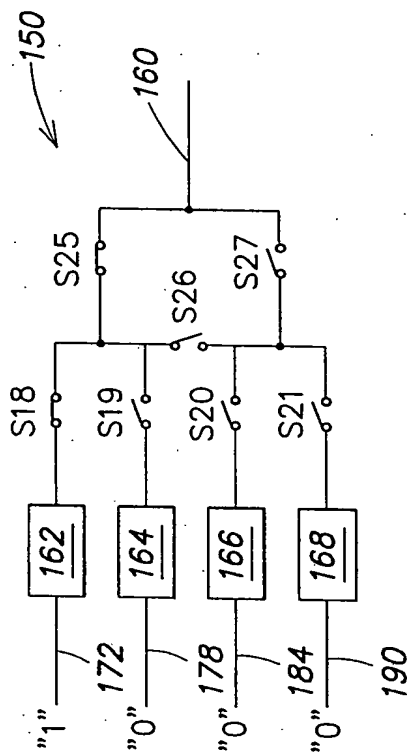


FIG. 11D

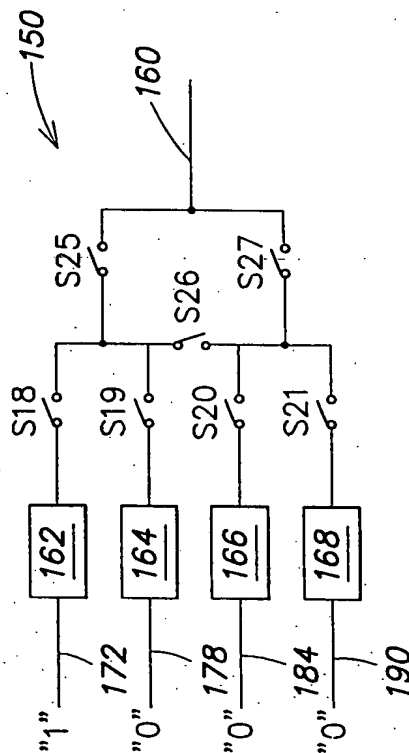


FIG. 11A

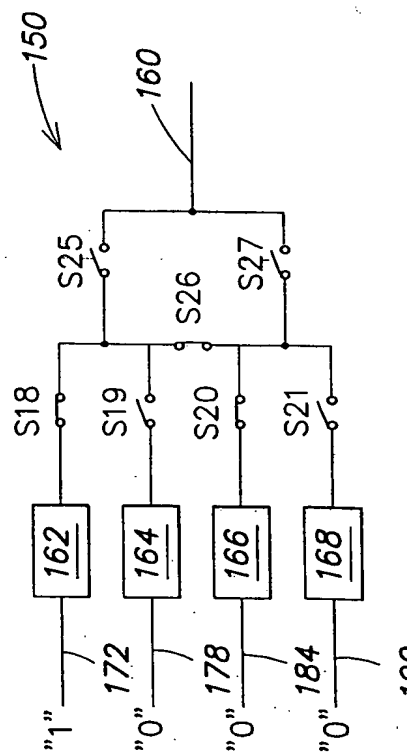


FIG. 11C

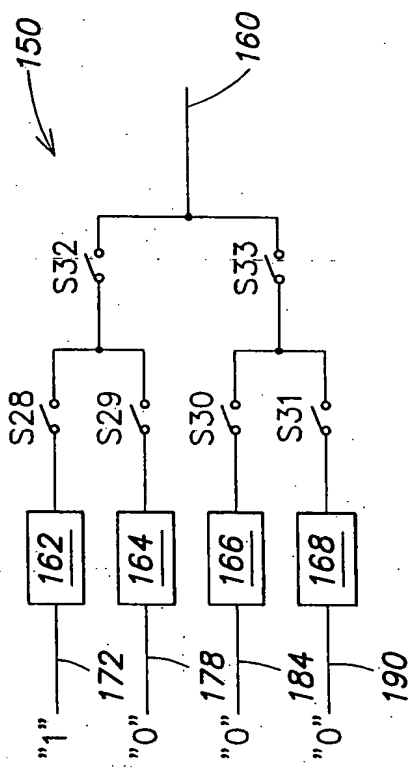


FIG. 12A

P1 = 0	$V(C1) = V_{ref}$	$Q(C1) = C \cdot V_{ref}$
P2 = 0	$V(C2) = 0$	$Q(C2) = 0$
P3 = 1	$V(C3) = 0$	$Q(C3) = 0$
	$V(C4) = 0$	$Q(C4) = 0$

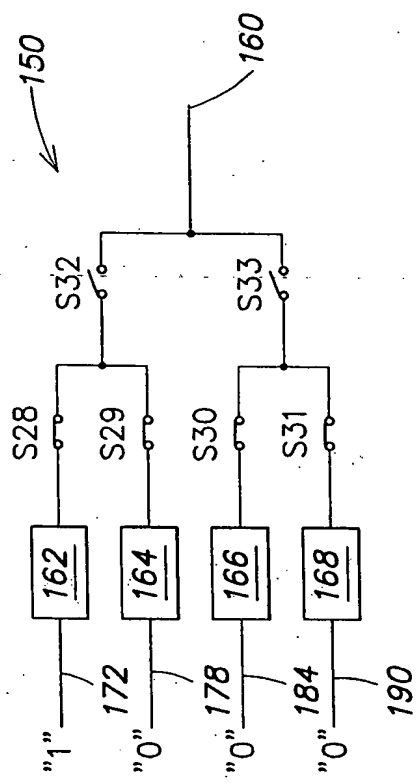


FIG. 12B

P1 = 1	$V(C1) = V_{ref}/2$	$Q(C1) = C \cdot V_{ref}/2$
P2 = 0	$V(C2) = V_{ref}/2$	$Q(C2) = C \cdot V_{ref}/2$
P3 = 0	$V(C3) = 0$	$Q(C3) = 0$
	$V(C4) = 0$	$Q(C4) = 0$

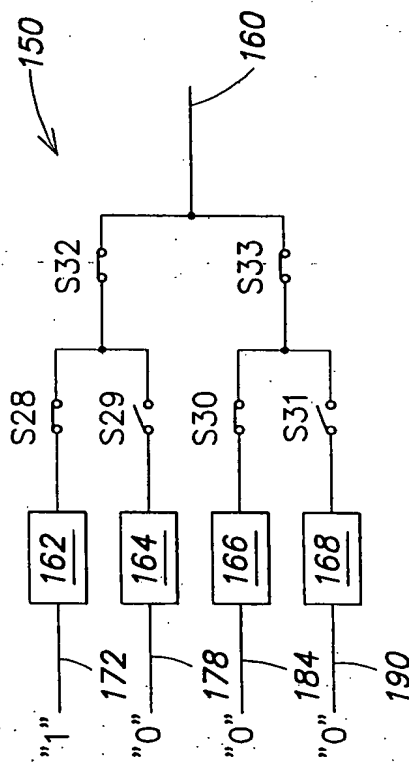
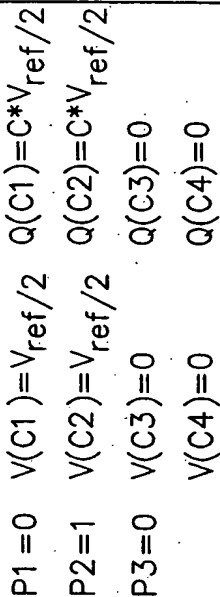
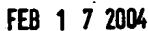
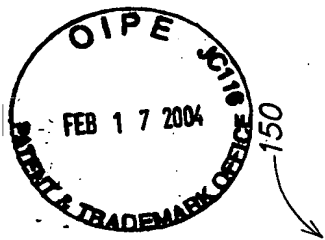


FIG. 12C



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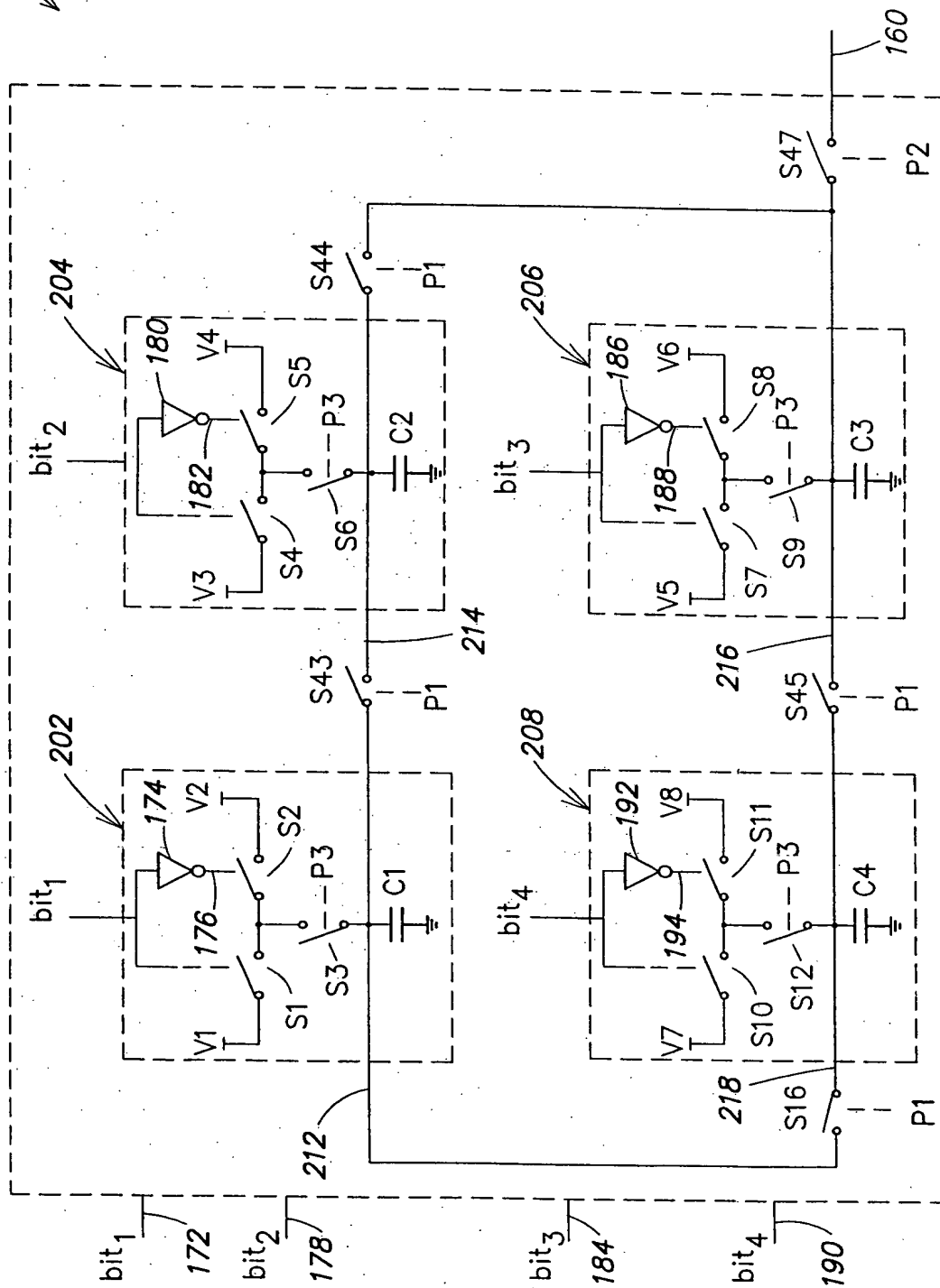
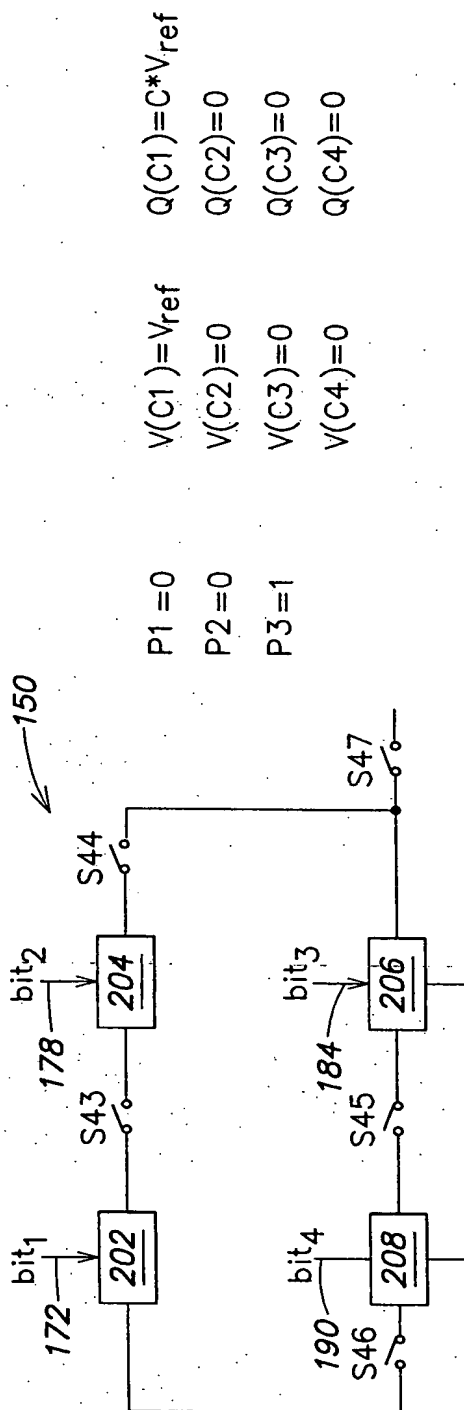


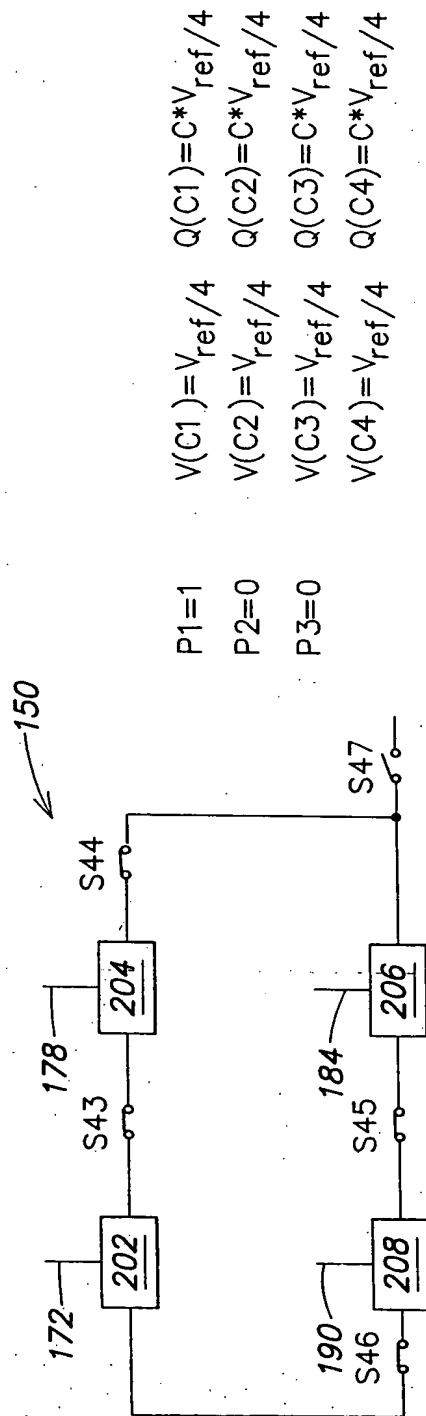
FIG. 13



$$\begin{aligned} V(C1) &= V_{ref} \\ V(C2) &= 0 \\ V(C3) &= 0 \\ V(C4) &= 0 \end{aligned}$$

$$\begin{aligned} Q(C1) &= C \cdot V_{ref} \\ Q(C2) &= 0 \\ Q(C3) &= 0 \\ Q(C4) &= 0 \end{aligned}$$

FIG. 14A



$$\begin{aligned} V(C1) &= V_{ref}/4 \\ V(C2) &= V_{ref}/4 \\ V(C3) &= V_{ref}/4 \\ V(C4) &= V_{ref}/4 \end{aligned}$$

$$\begin{aligned} Q(C1) &= C \cdot V_{ref}/4 \\ Q(C2) &= C \cdot V_{ref}/4 \\ Q(C3) &= C \cdot V_{ref}/4 \\ Q(C4) &= C \cdot V_{ref}/4 \end{aligned}$$

FIG. 14B



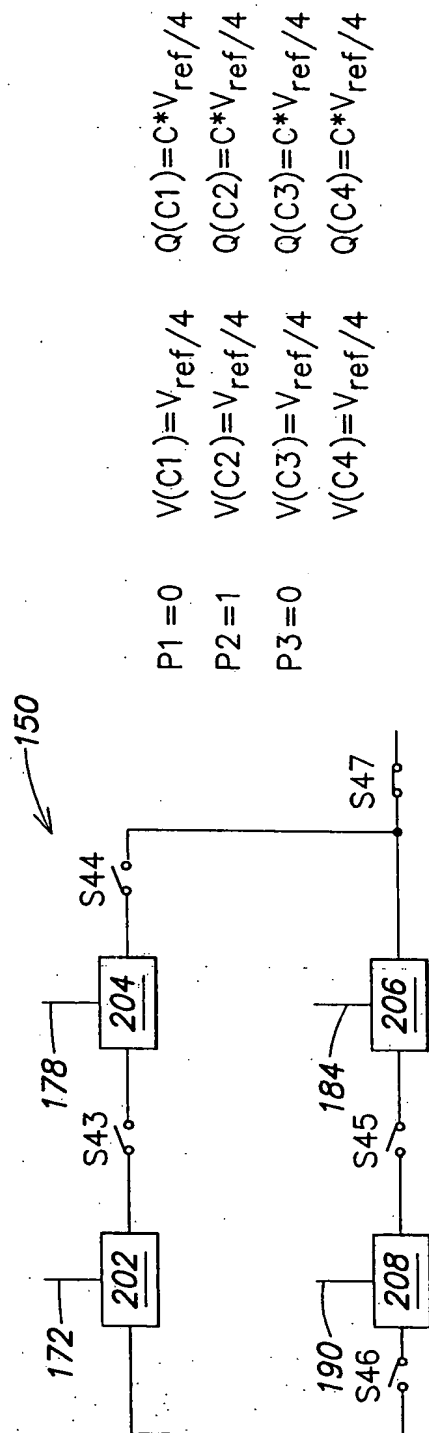
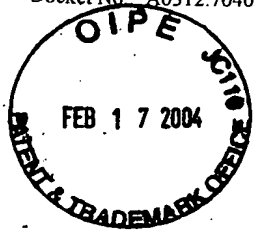


FIG. 14C

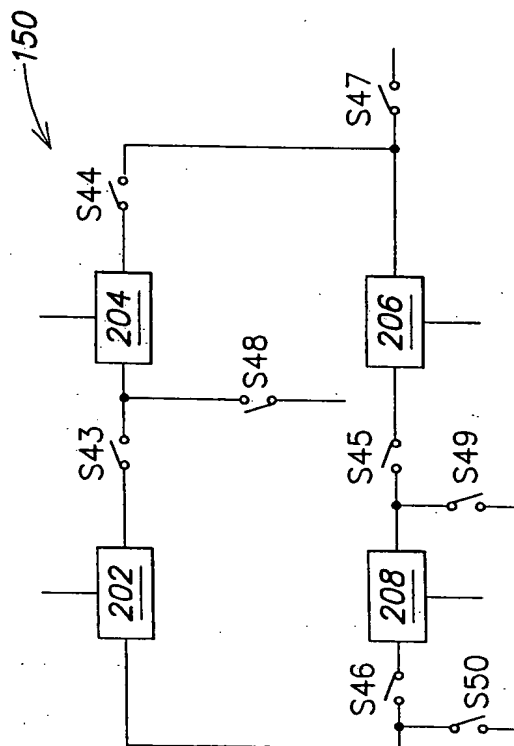


FIG. 15



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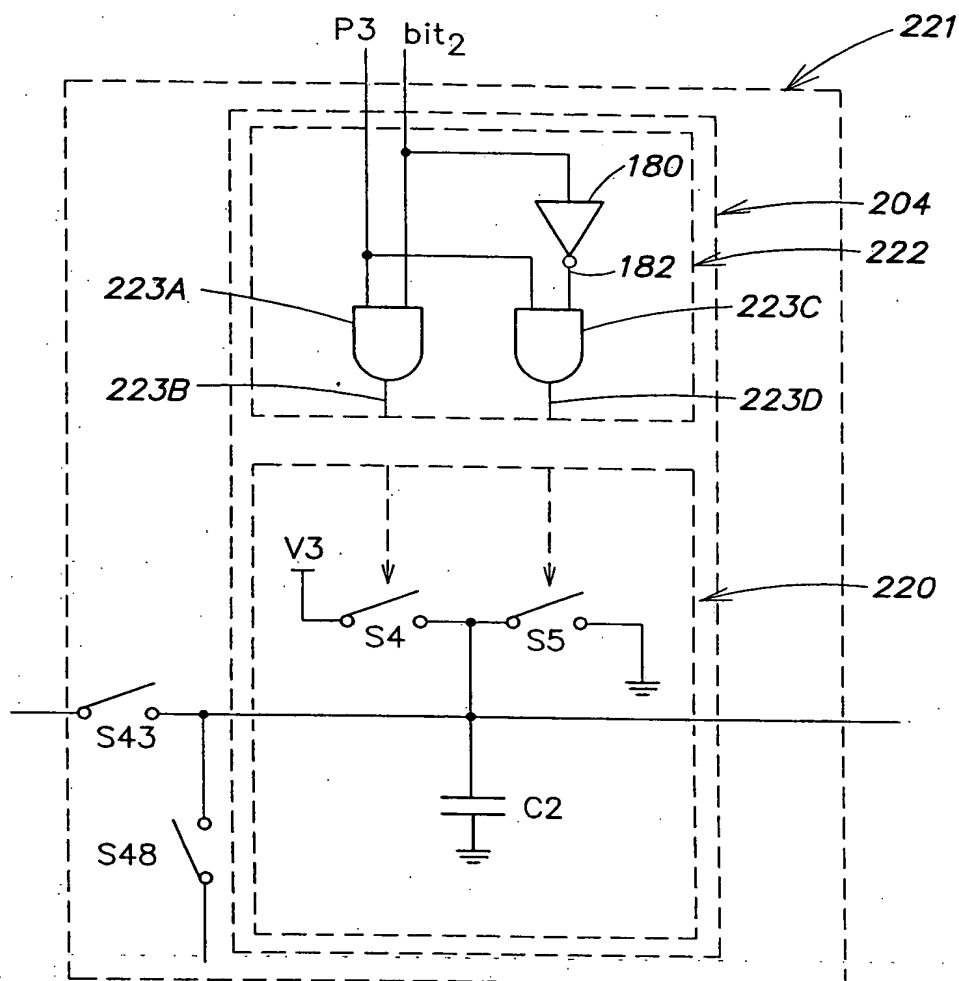


FIG. 16A



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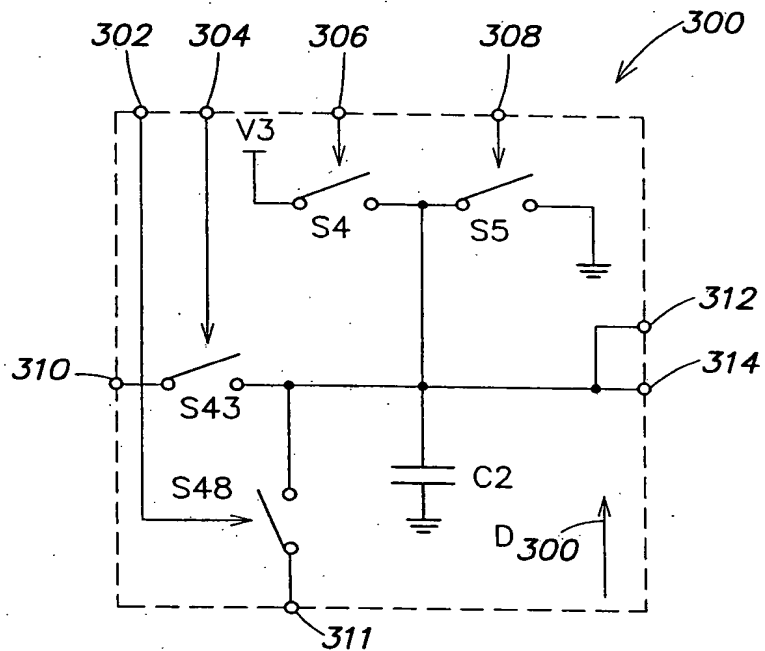


FIG. 16B



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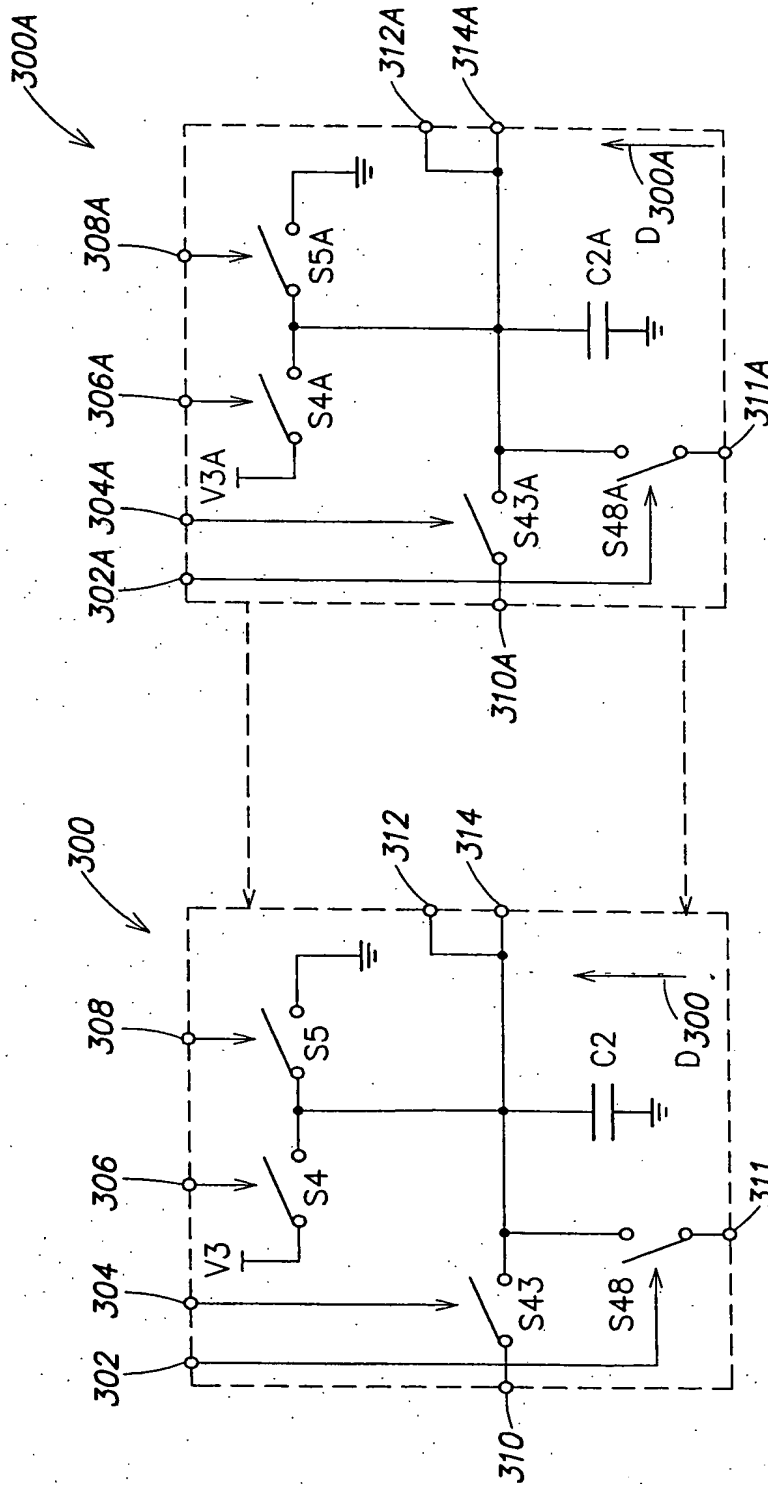
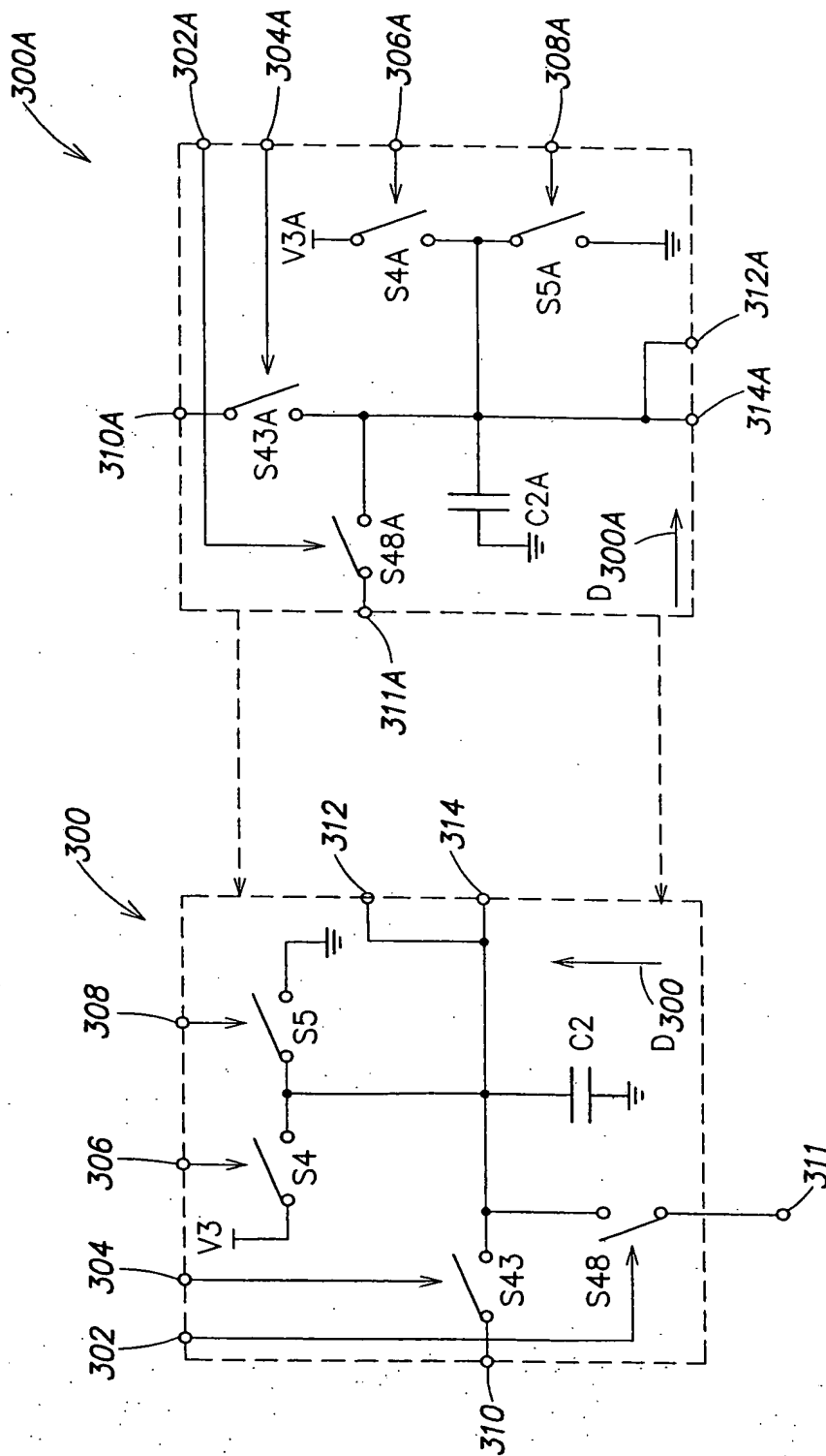


FIG. 16C



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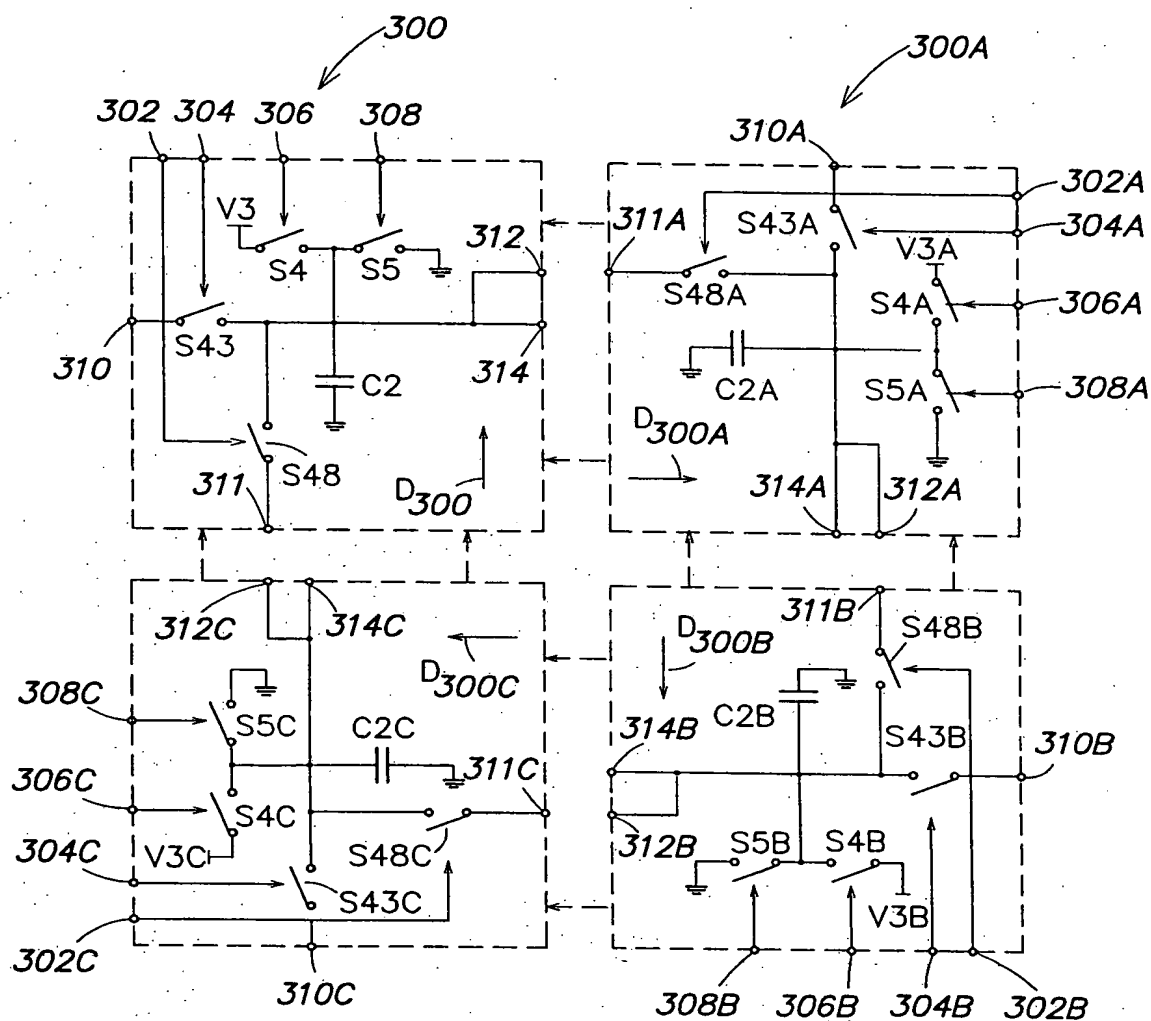
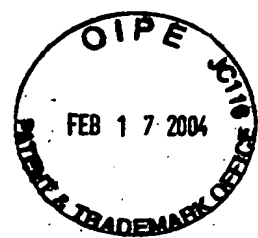


FIG. 16E



FIG. 17

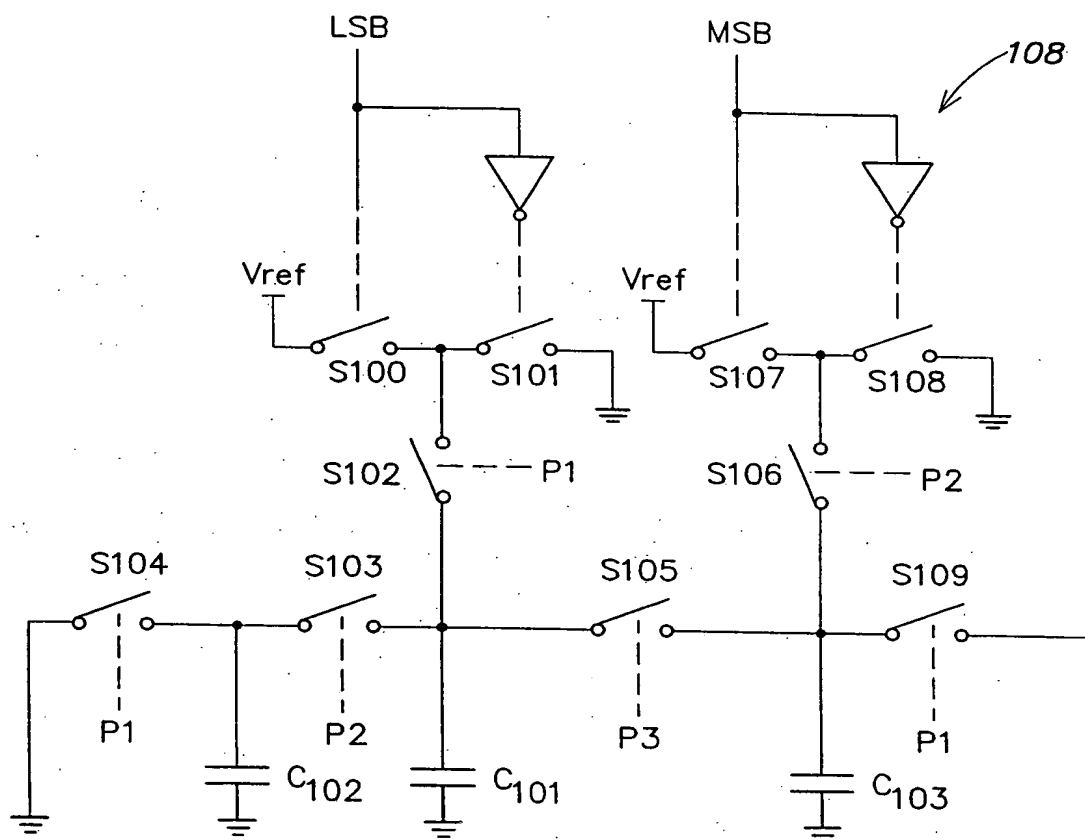
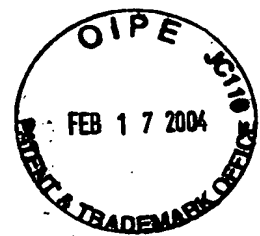
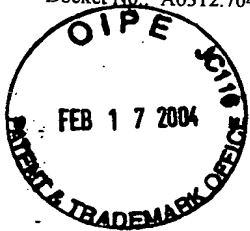


FIG. 18



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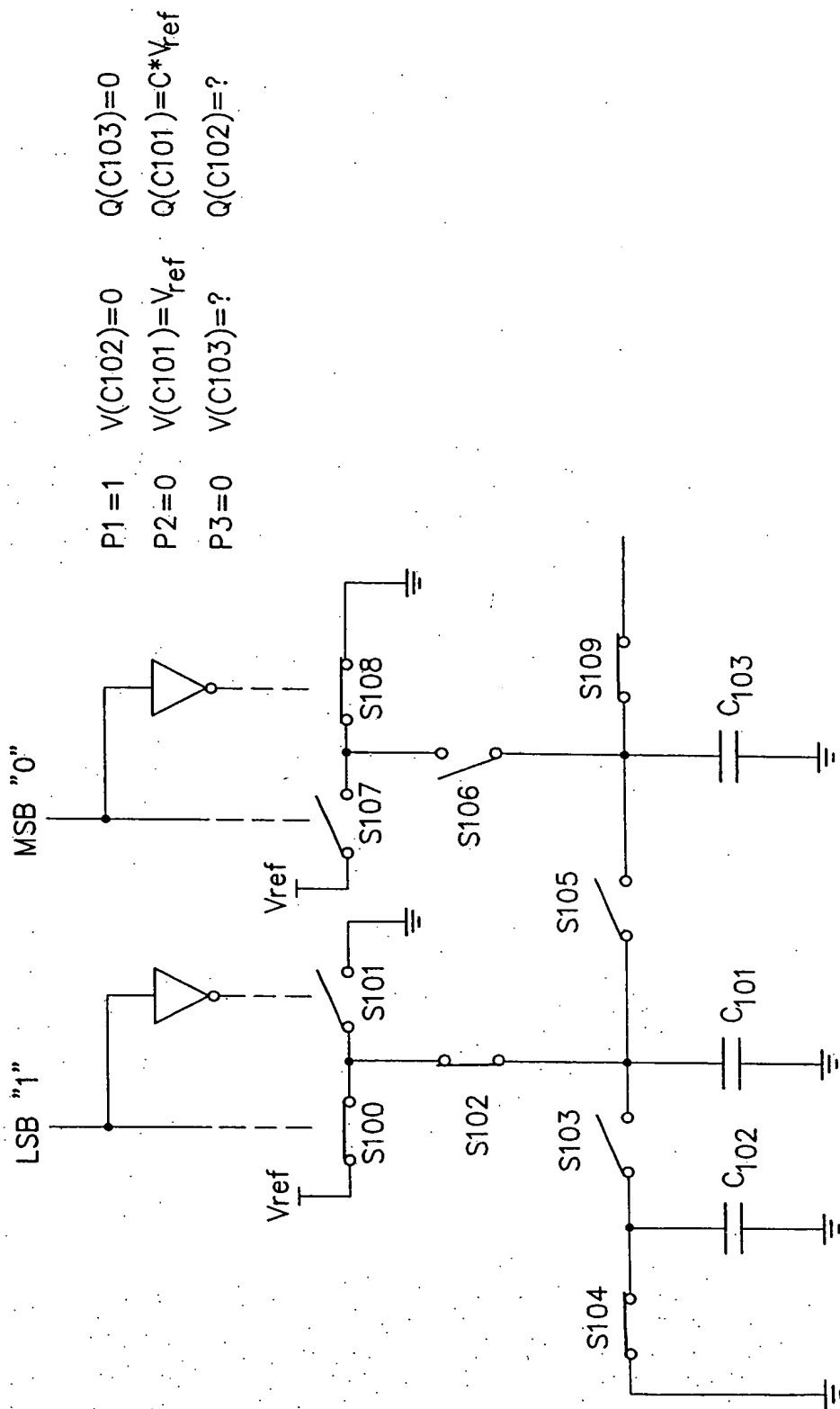


FIG. 19A



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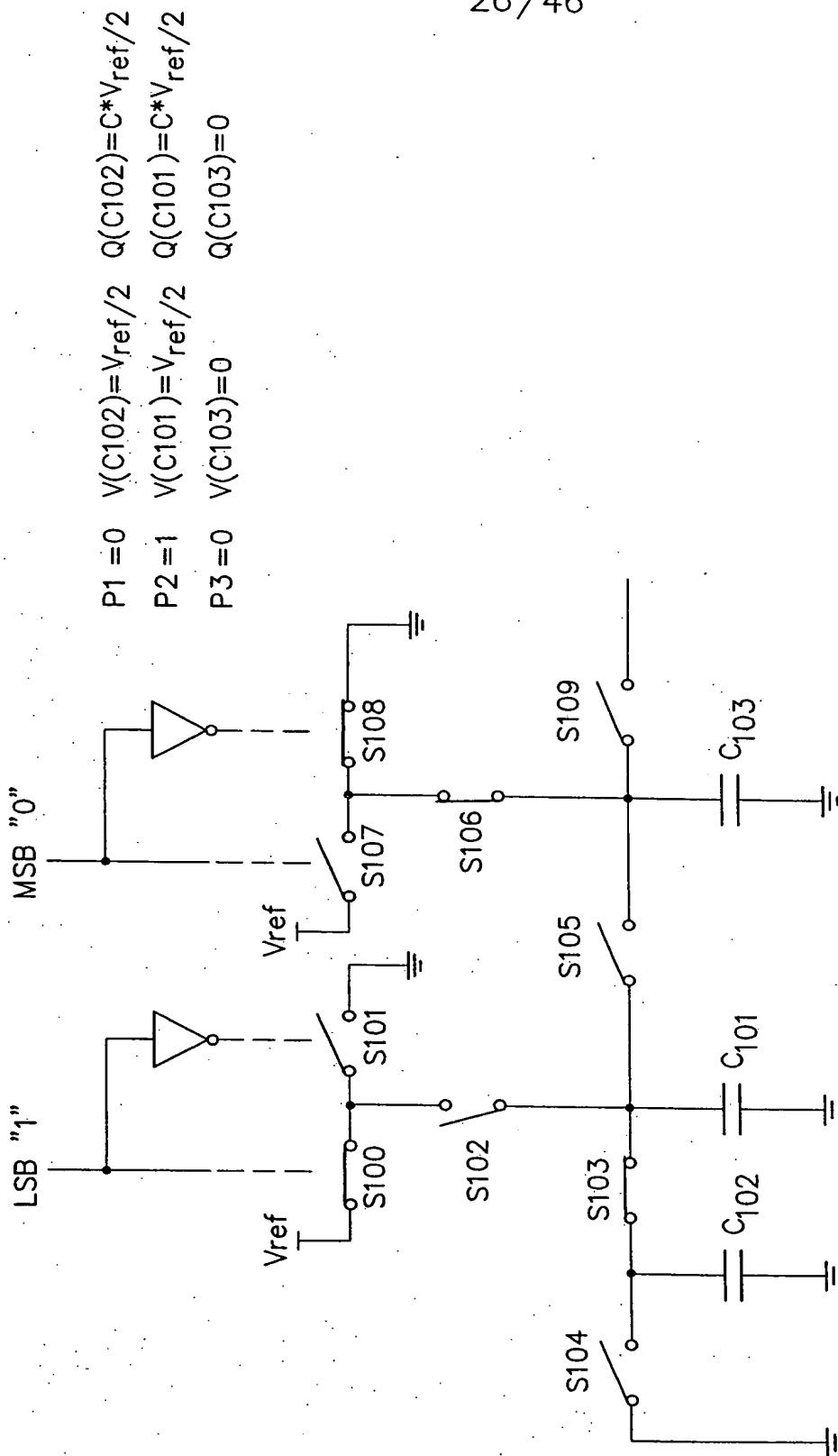


FIG. 19B



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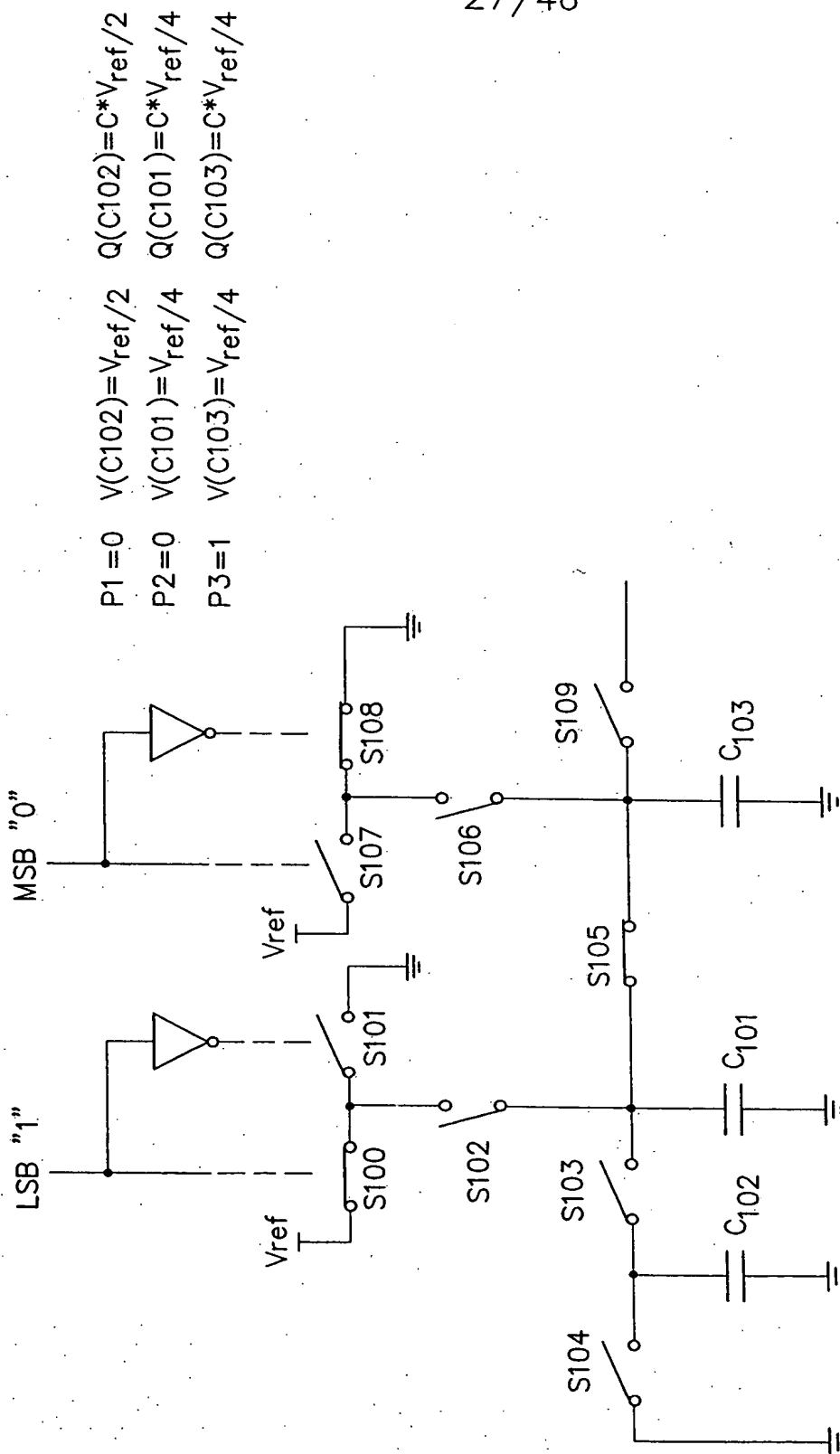


FIG. 19C



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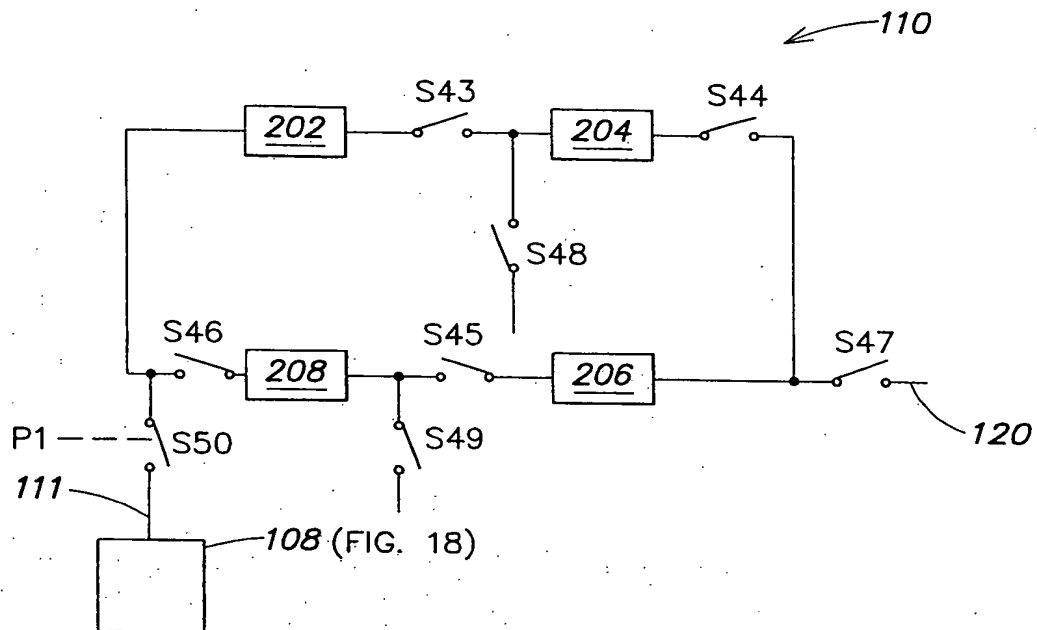


FIG. 20



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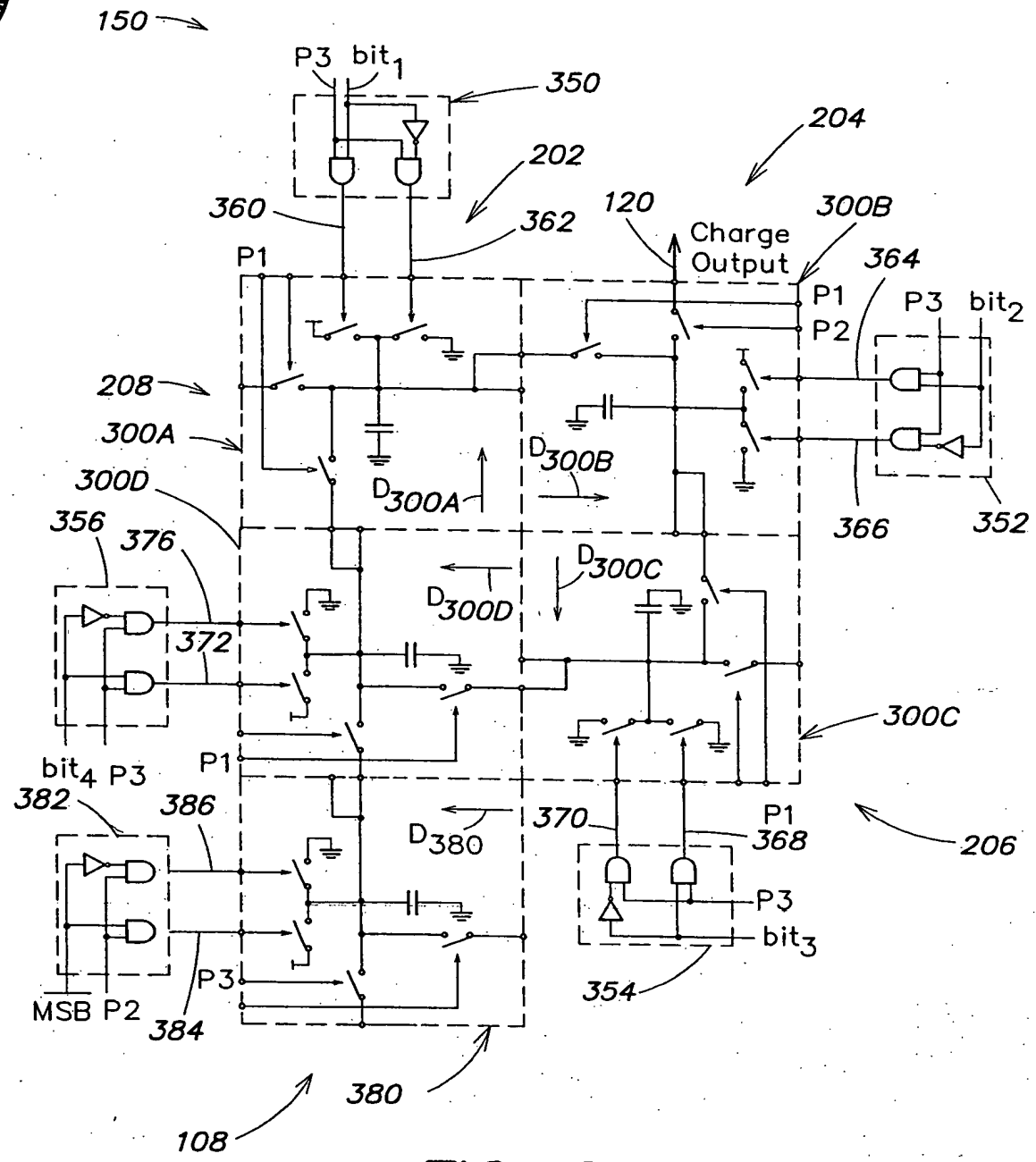


FIG. 21



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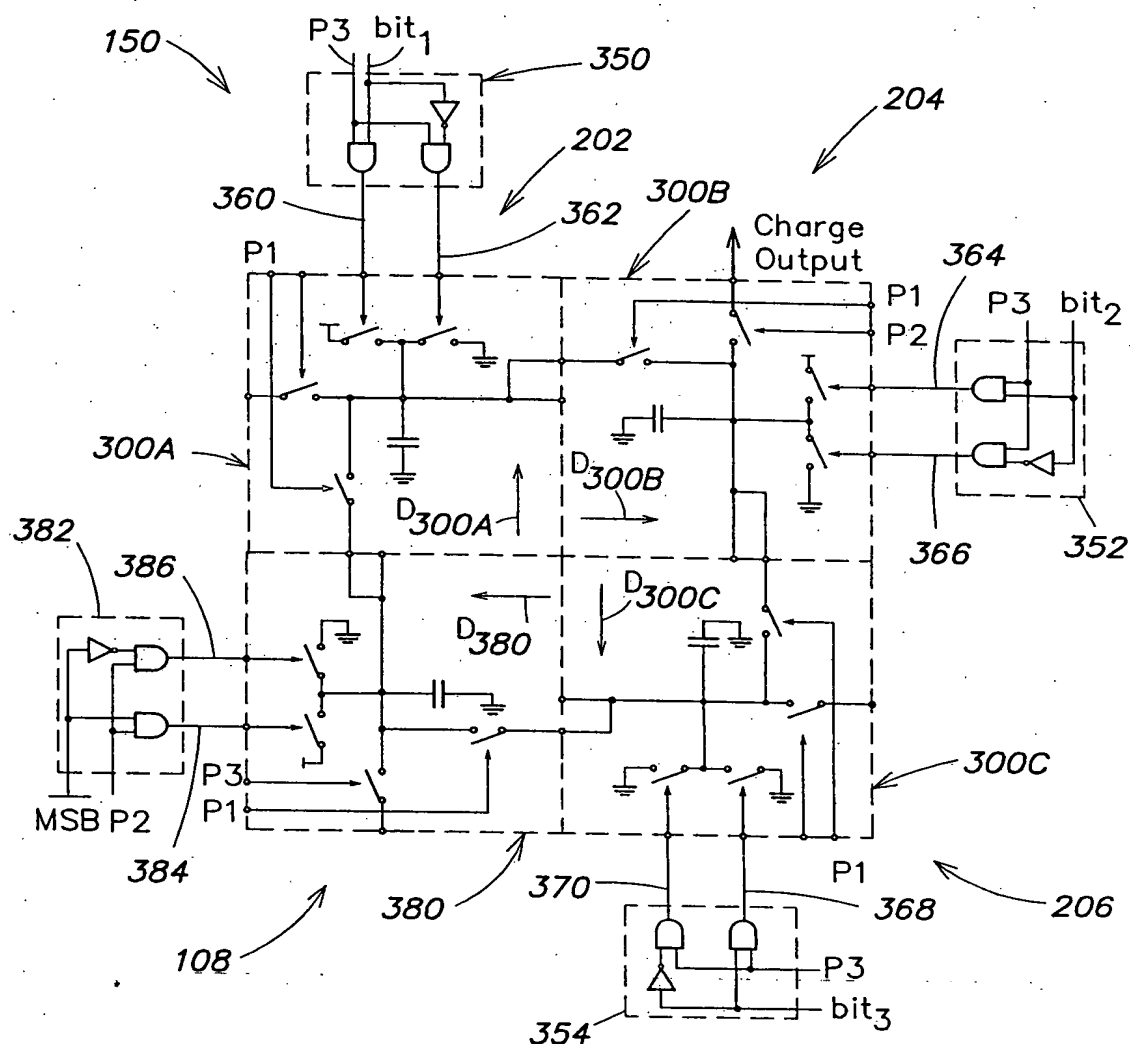


FIG. 22

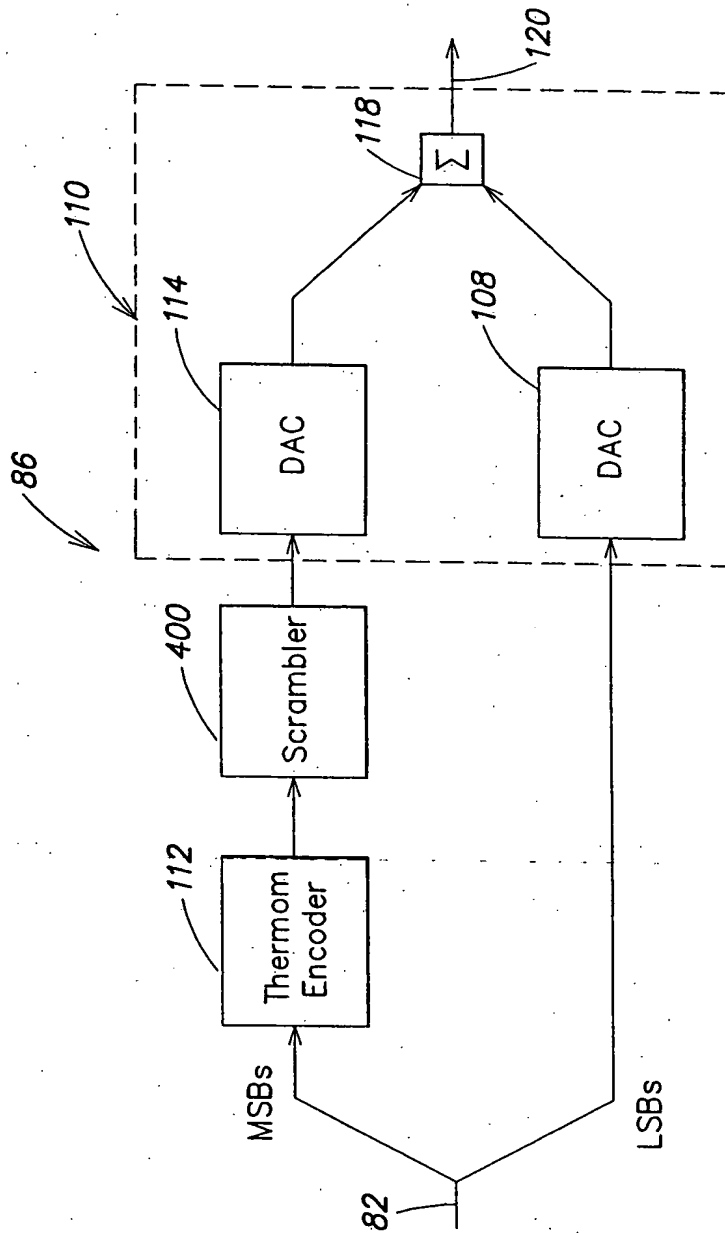


FIG. 23





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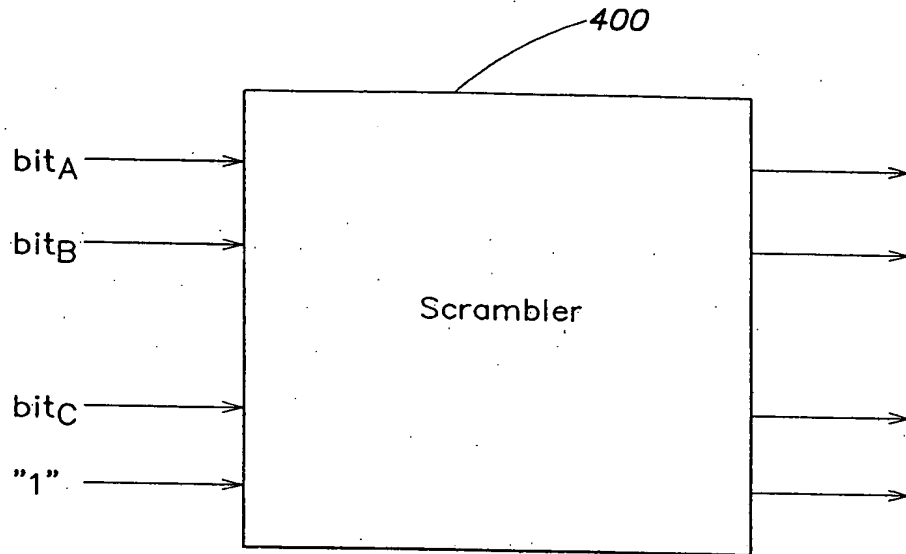


FIG. 24

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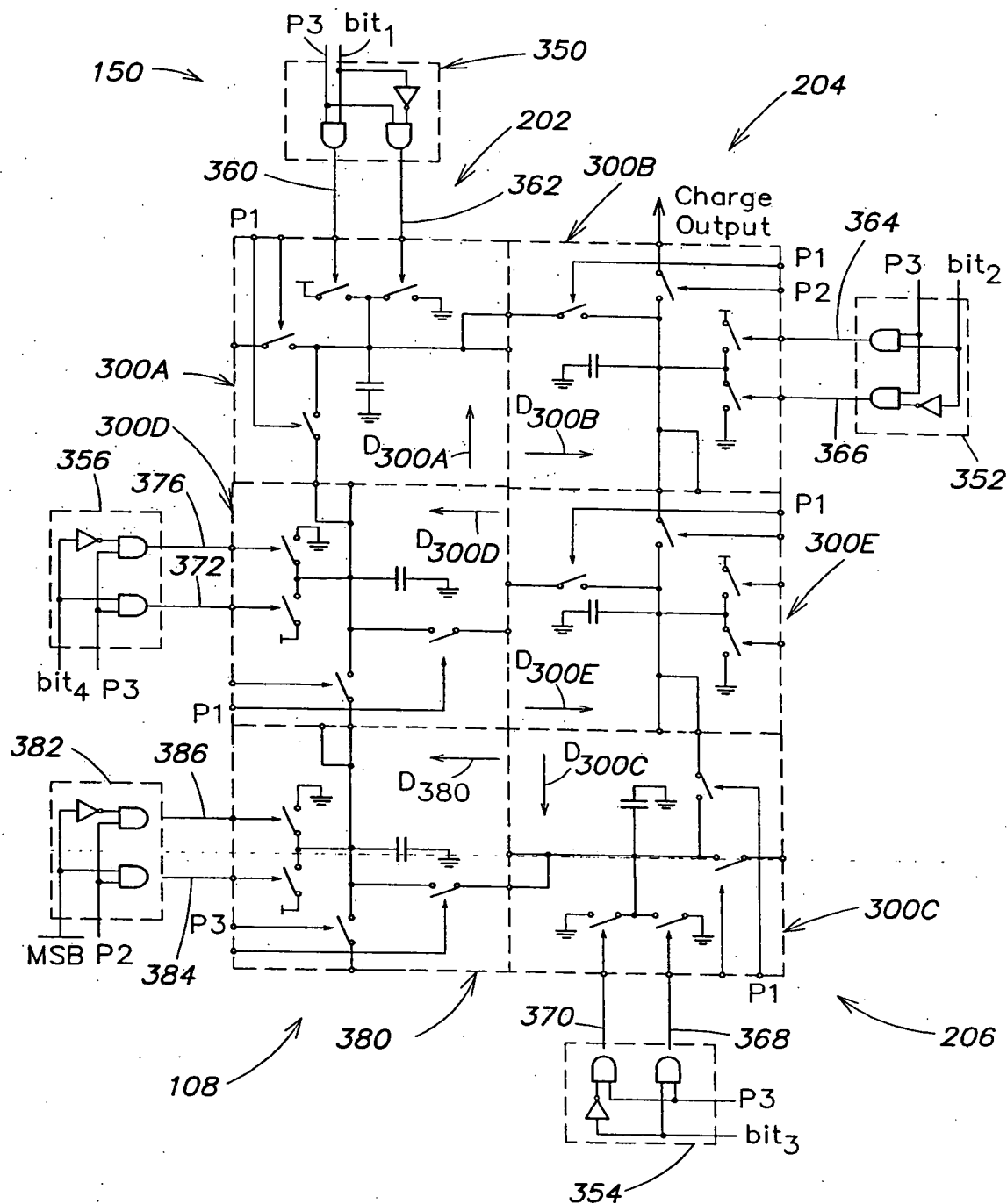
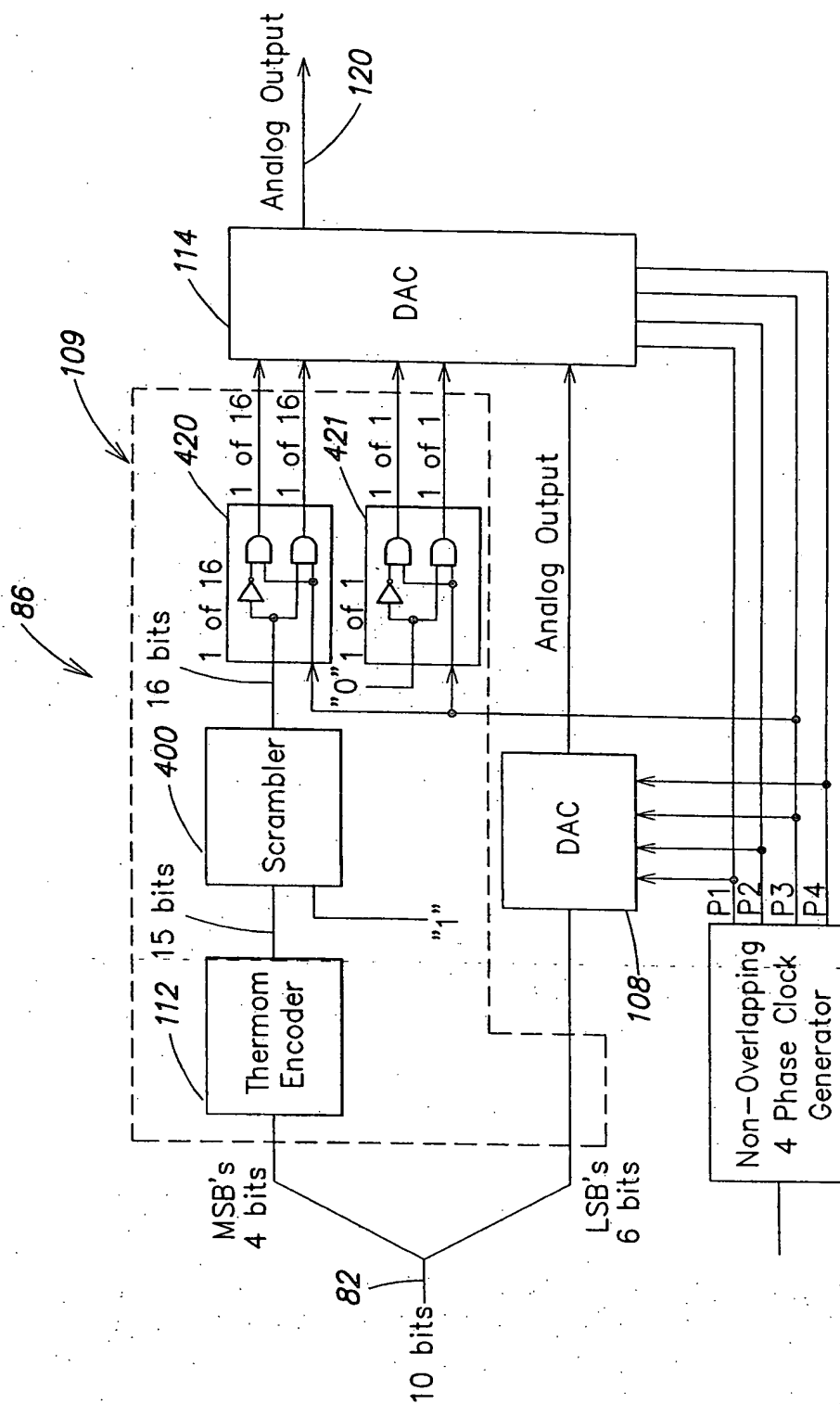


FIG. 25





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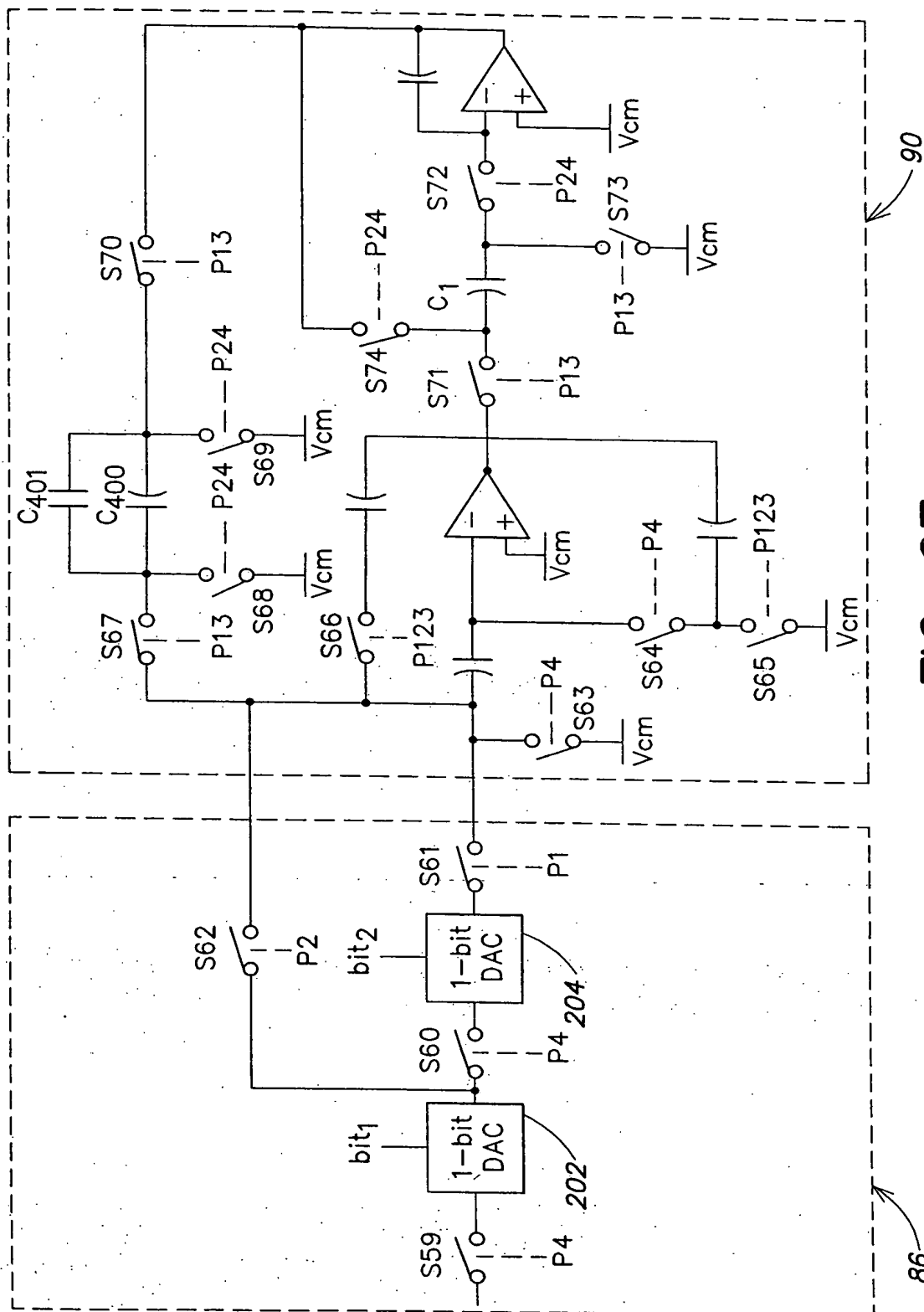


FIG. 27

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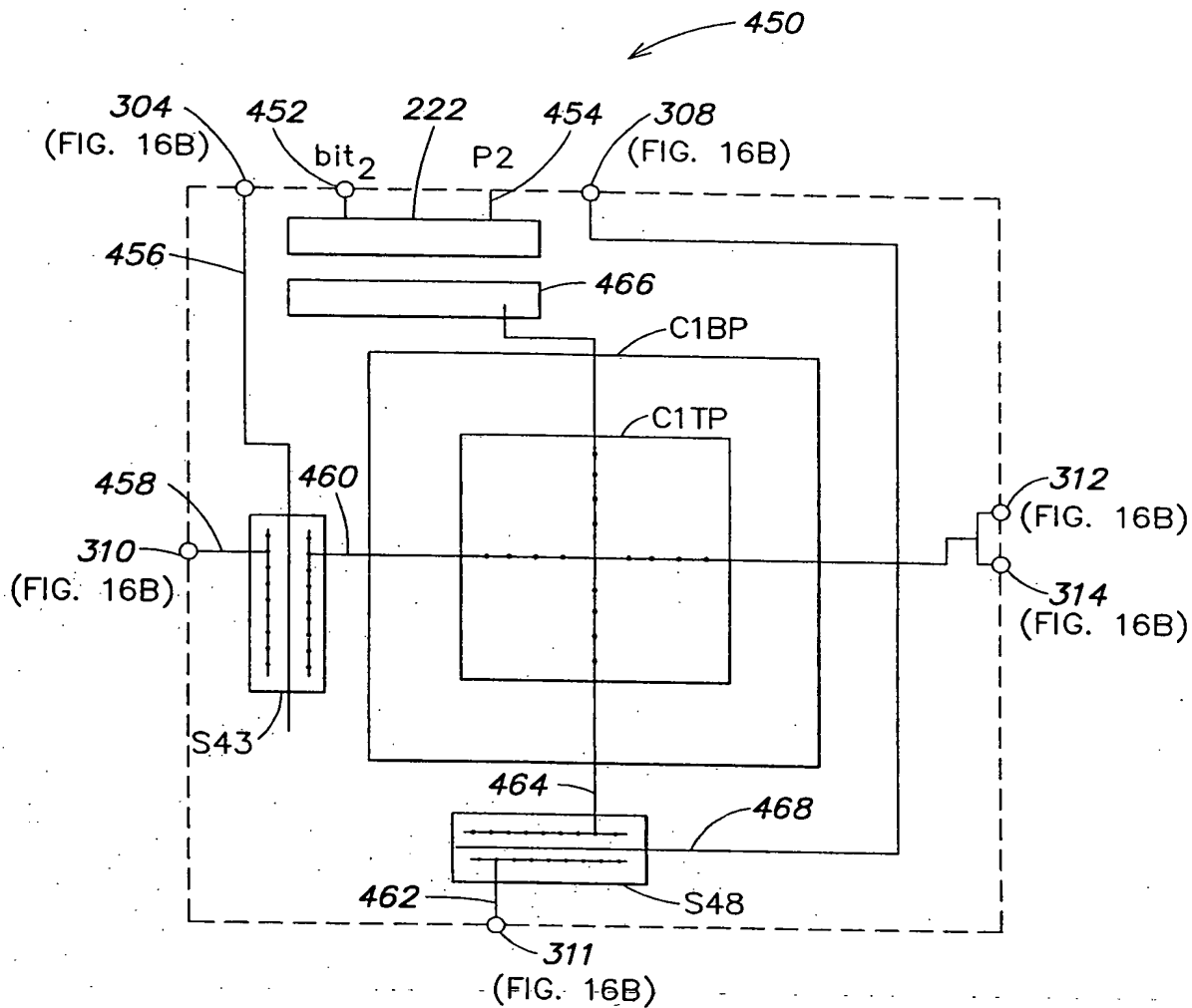
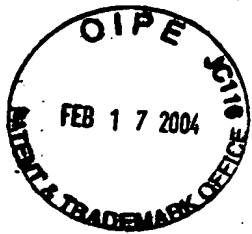


FIG. 28A



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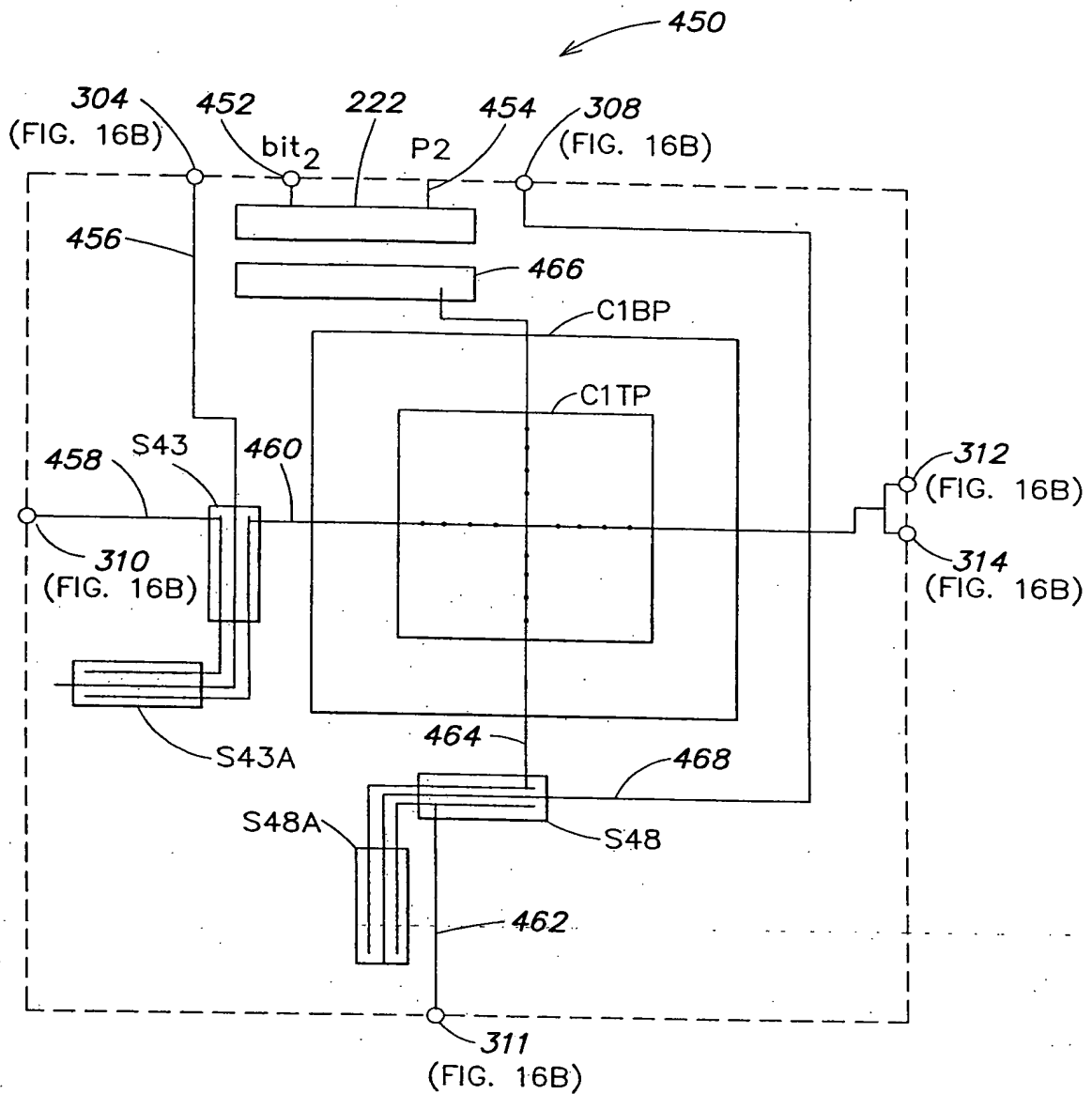


FIG. 28B



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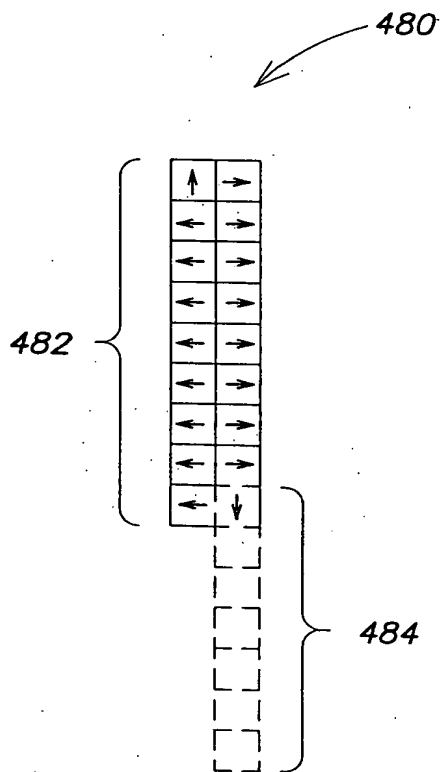


FIG. 29



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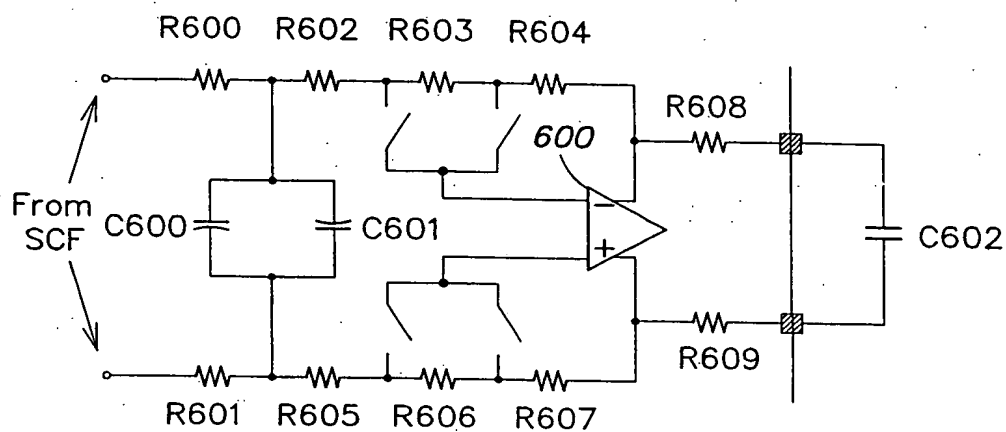


FIG. 30

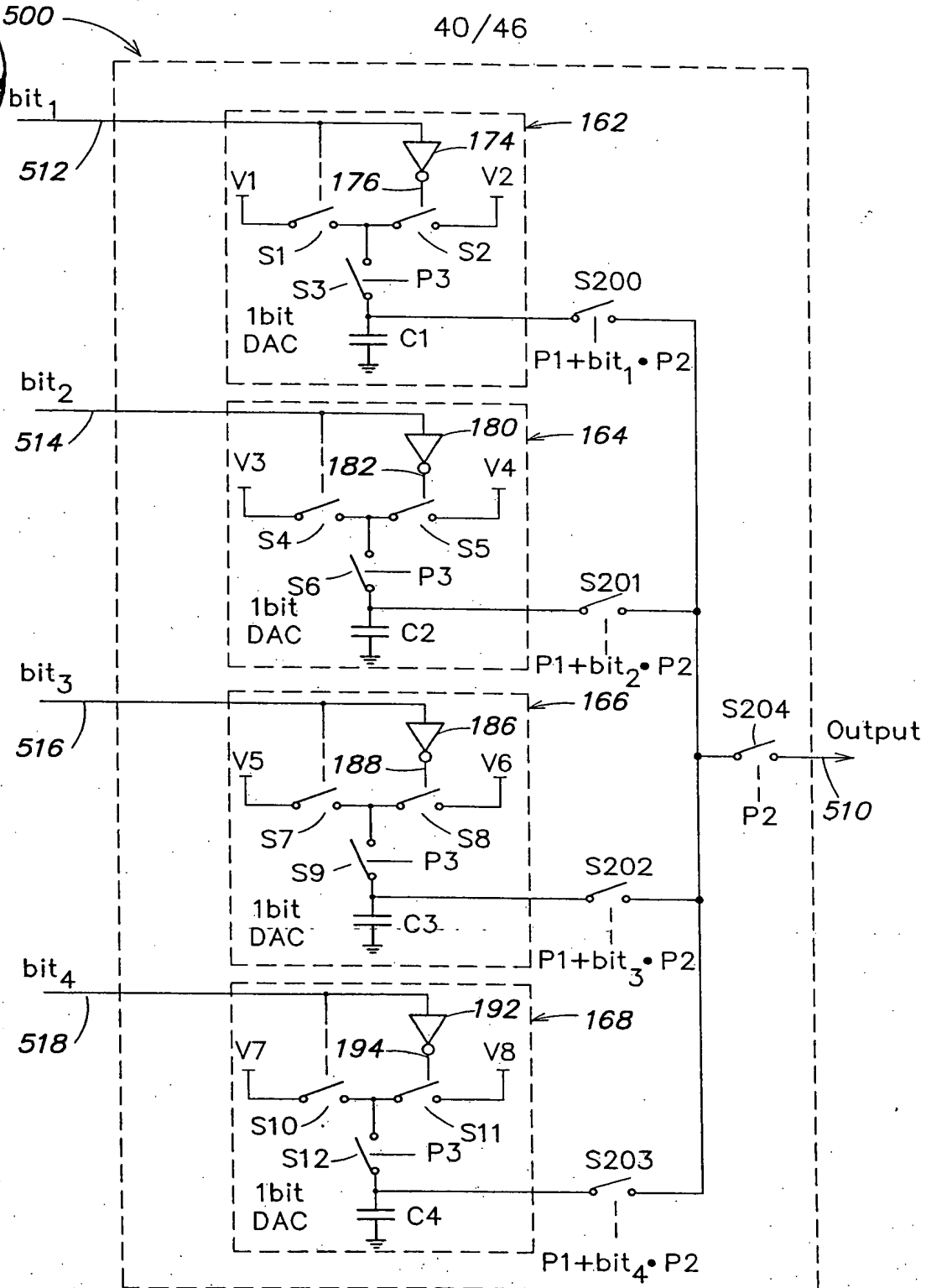


FIG. 31



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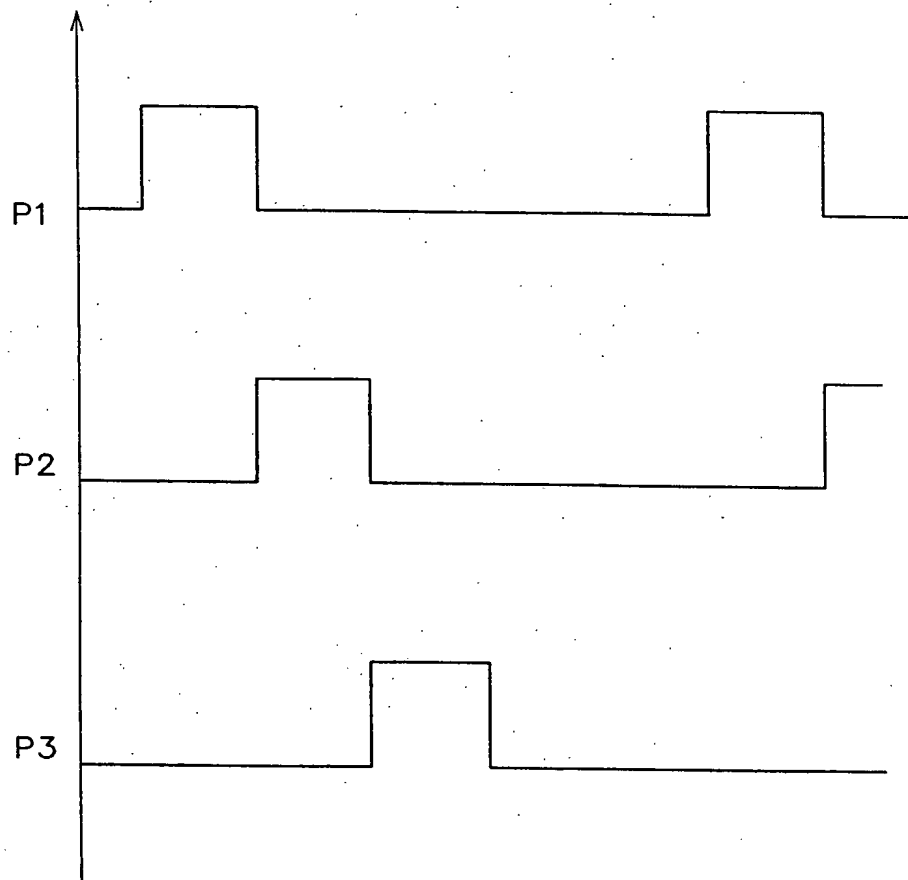


FIG. 32

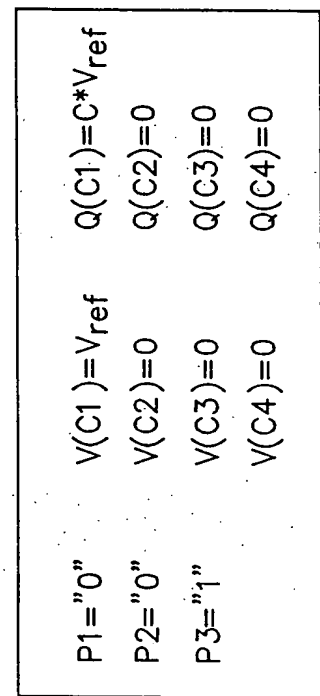
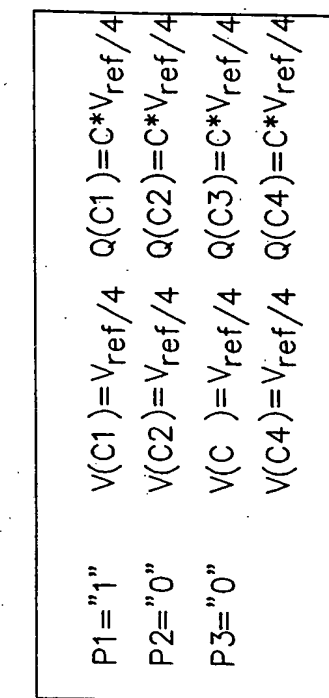


FIG. 33A

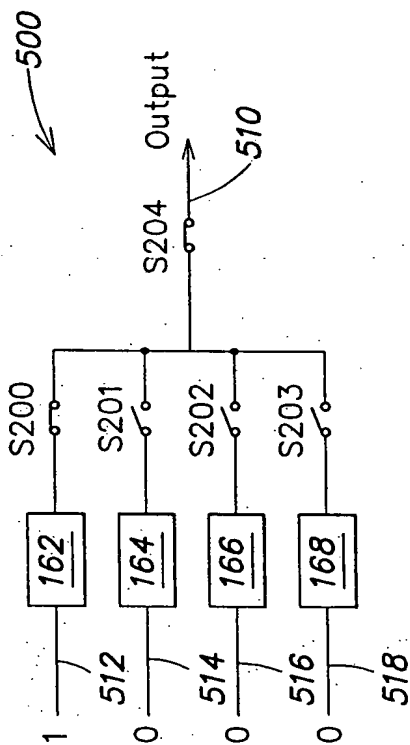


Q delivered to
output terminal
is $Q(C1) = C \cdot V_{ref}/4$

FIG. 33B



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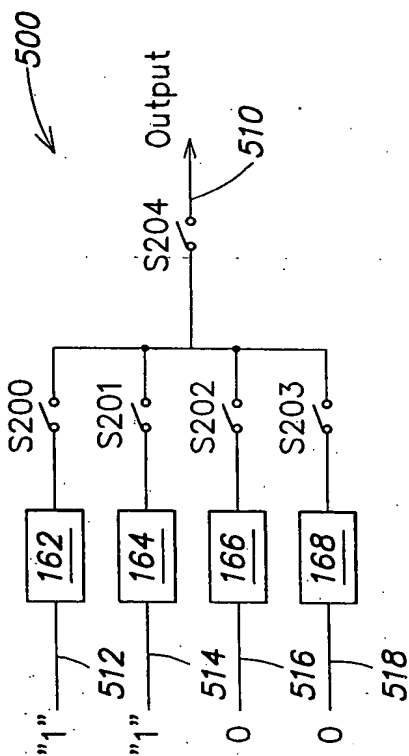
P1 = "0"	$V(C1) = V_{ref}/4$	$Q(C1) = C \cdot V_{ref}/4$
P2 = "1"	$V(C2) = V_{ref}/4$	$Q(C2) = C \cdot V_{ref}/4$
P3 = "0"	$V(C3) = V_{ref}/4$	$Q(C3) = C \cdot V_{ref}/4$
	$V(C4) = V_{ref}/4$	$Q(C4) = C \cdot V_{ref}/4$

Q delivered to
 output terminal
 is $Q(C1) = C \cdot V_{ref}/4$

FIG. 33C

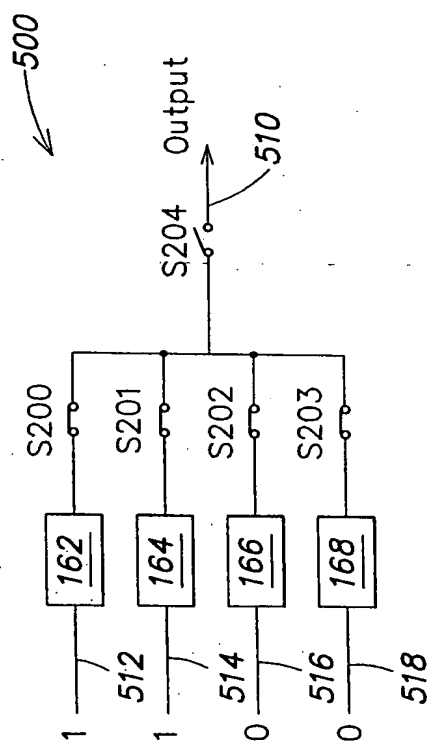


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P1 = "0"	$V(C1) = V_{ref}$	$Q(C1) = C \cdot V_{ref}$
P2 = "0"	$V(C2) = V_{ref}$	$Q(C2) = C \cdot V_{ref}$
P3 = "1"	$V(C3) = 0$	$Q(C3) = 0$
	$V(C4) = 0$	$Q(C4) = 0$

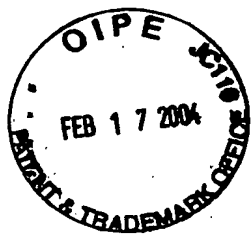
FIG. 34A



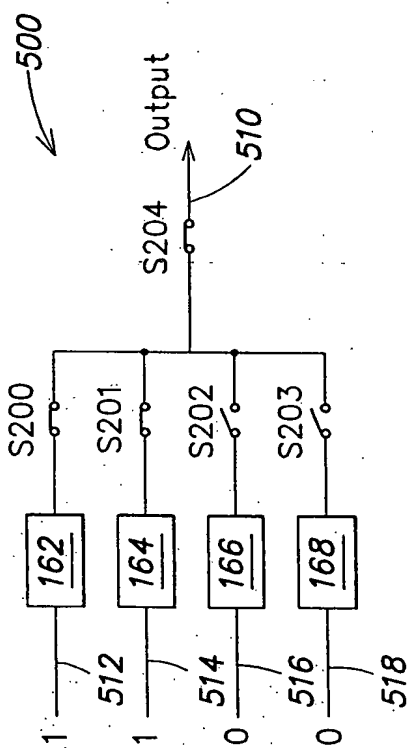
P1 = "1"	$V(C1) = V_{ref}/2$	$Q(C1) = V_{ref}/2$
P2 = "0"	$V(C2) = V_{ref}/2$	$Q(C2) = V_{ref}/2$
P3 = "0"	$V(C3) = V_{ref}/2$	$Q(C3) = V_{ref}/2$
	$V(C4) = V_{ref}/2$	$Q(C4) = V_{ref}/2$

Q delivered to output terminal
 is $Q(C1) + Q(C2) = C \cdot V_{ref}/2 + C \cdot V_{ref}/2 = C \cdot V_{ref}$

FIG. 34B



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P1 = "0"	$V(C1) = V_{ref}/2$	$Q(C1) = V_{ref}/2$
P2 = "1"	$V(C2) = V_{ref}/2$	$Q(C2) = V_{ref}/2$
P3 = "0"	$V(C3) = V_{ref}/2$	$Q(C3) = V_{ref}/2$
	$V(C4) = V_{ref}/2$	$Q(C4) = V_{ref}/2$

Q delivered to output terminal
 is $Q(C1) + Q(C2) = C \cdot V_{ref}/2 + C \cdot V_{ref}/2 = C \cdot V_{ref}$

FIG. 34C



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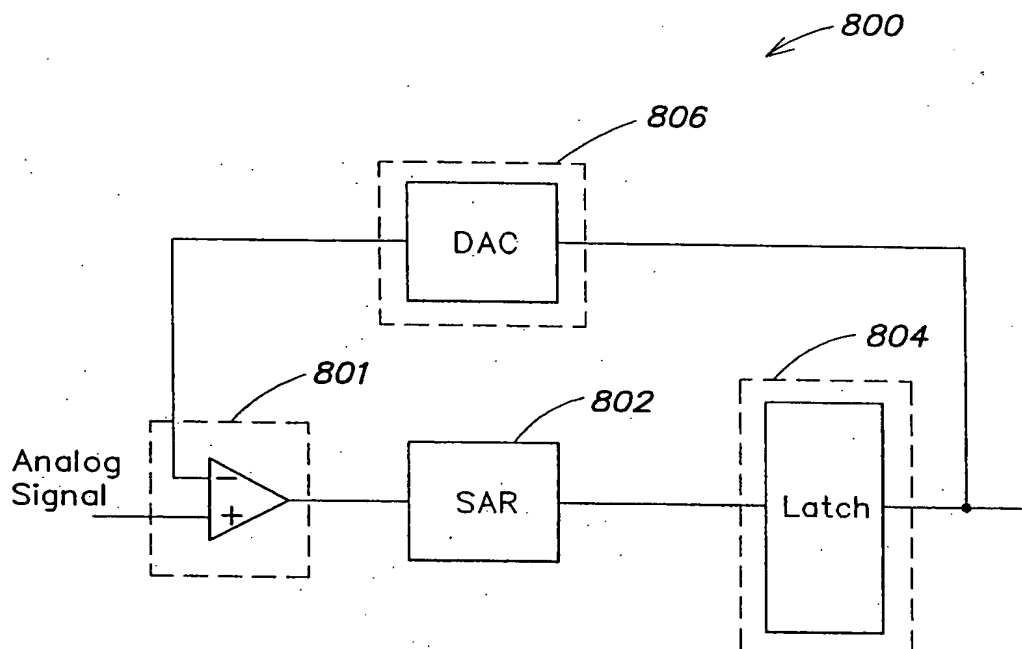


FIG. 35